esident Physician

Medicine Under a State

Pills and Principles

Service: Army, Navy, Air Force

University of Kansas Medical Center

Medical Ethics and Etiquette

Guest Editorial

SPECIAL REPORT

your military service

• • • page 52

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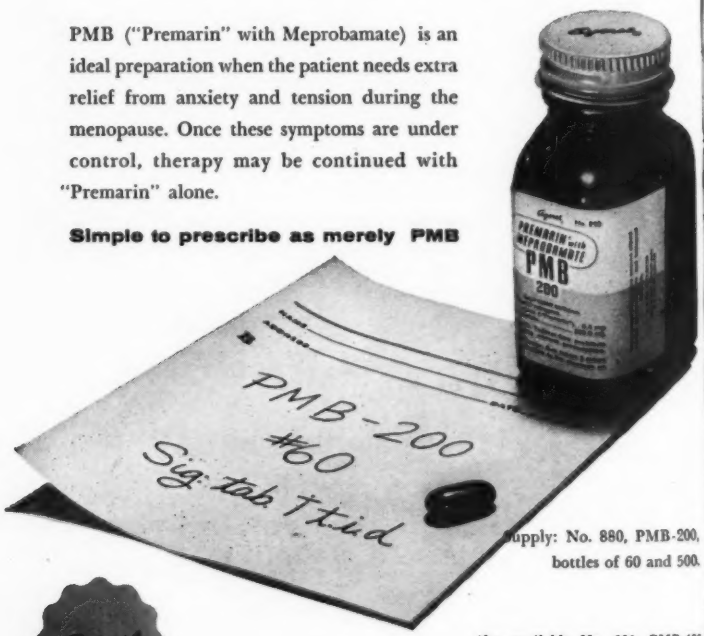

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June 1958, Vol. 4, No. 6

Journal for the Hospital Staff Officer

Resident Physician

June 1958, Vol. 4, No. 6

Articles are accepted for publication with the understanding that they are contributed solely to this publication, and will directly interest or be of practical value to resident physicians. When possible, two copies of the manuscript should be submitted. Articles with photographs, illustration or drawings are especially desired.

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Resident Physician

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Resident Physician

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*Ratner, Bret; Crawford, L. V.; and Flynn, J. G.: Amer. J. Dis. Child., 91:593, 1956

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Resident Physician

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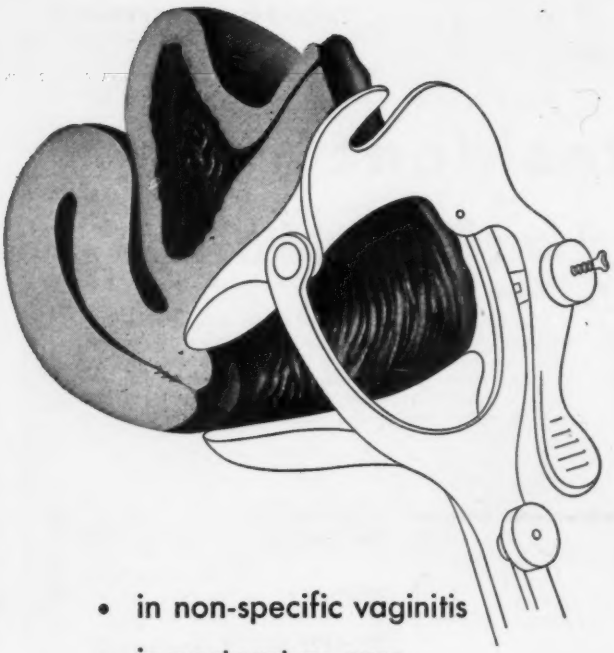

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Viewbox Diagnosis

Edited by Maxwell H. Poppel, M.D., F.A.C.R.,
Professor of Radiology, New York University College of Medicine
and Director of Radiology, Bellevue Hospital Center

What Is Your Diagnosis?

1. Cystic disease of the lung
2. Emphysematous blebs
3. Multiple abscesses
4. Congenital fibrocystic disease

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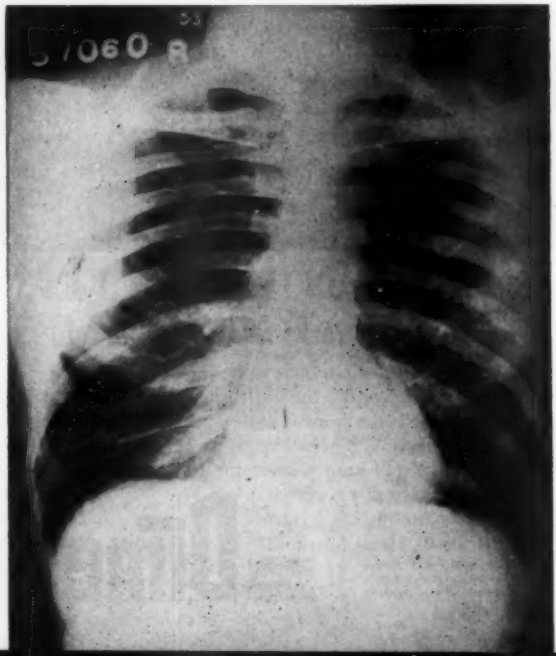

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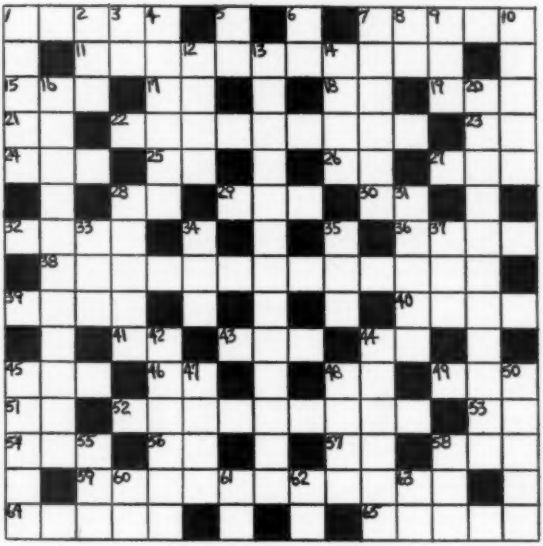

ACROSS

- ger or toe
- oose
- lating to breathing
- nall mass
- ropium (Symb.)
- ydrogen sulfide
- d (Prefix)
- om (Prefix)
- earing away
- anifest hyperopia (Abbr.)
- raight cylinder
- alf (Lat. Abbr.)
- ld Tuberculira (Abbr.)
- erceive optically)
- lenuim (Symbol)
- nesthetic
- adium emanation (symbol)
- ture
- nits of electrical resist-nce
- epugnance to certain dors
- ondon surgeon famous for all
- t
- leurosurgery (Abbr.)
- erman physicist (1787-854)
- erium (Symb.)
- xtremity
- alladium, (Symb.)
- utecium, (Symb.)
- emains after substance urned
- Nickel (Symb.)
- Material around seed
- onium (Symb.)
- Organ of hearing
- Radium, (Symb.)
- Normal atmosphere (Abbr.)
- American Society of Orthodondists
- Sullen rabies
- Manila hemp plant
- Radices

DOWN

- English chemist noted for vacuum flask
- Staggers, in sheep
- Denoting enclosure
- African Fly
- Two (Prefix.)
- Barium (Symb.)
- Creosote valerianate
- Dose measuring potency of diphtheria antitoxic serum
- Organ of sight
- Source of thymol
- Places
- Sense of smell
- Prefix denoting sulfur
- Mental derangement plus weakened will
- Any disorder of rheumatic origin
- Prostatic fluid
- Hebetudinosity
- Utilize
- To be taken three times a day (Abbr.)
- Chromobacterium (Abbr.)
- Iodic acid
- Seed
- Bunsen's instrument
- Proctoclysis
- Dull
- Not fatty
- Curved instruments
- Right dorsoanterior (Abbr.)
- American Society of Orthodondists
- Uniting cartilage (Abbr.)
- Mother (Colloq.)
- ——ing, expiring
- In like manner

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1. Birnberg, C.H., and Abitbol, M.M.: Obst. & Gynec. *10*:366, 1957.

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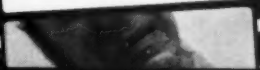

Letters to the Editor

Unsigned letters will neither be published nor read. However, at your request your name will be withheld.

Moving

I noticed reference to an article on long distance moving in the March 1958 issue. The article referred to is "Moving Is Your Business," originally published in the May 1956 issue. I would greatly appreciate receiving a copy of this article.

Arthur D. Kassel, M.D.
Assistant Chief
Veterans Administration Hospital
Brooklyn, N. Y.

I noticed with interest mention made in the March issue of the article "Moving Is Your Business" which was published in the May 1956 issue of RESIDENT PHYSICIAN. Would you kindly send me a copy of this article.

David F. Donovan, M.D.
Kings County Hospital
Brooklyn, N. Y.

• *Photostats of the article "Moving Is Your Business" are in the mail.*

PHS and the Draft

Having been unable to get a clear answer to my problem from either my local draft board nor from anyone here, I thought perhaps you might know the answer. I interned in the U. S. Public Health Service, following which I spent a year as a staff physician in the Division of Indian Health. For the past 21 months I have been in a medical residency at a USPHS hospital. The question which arises, of course, is, "What amount of this time is creditable as active duty for the purpose of fulfilling selective service requirements?"

I certainly would not want to leave the service at the conclusion of my residency, only to face possible drafting at a later date.

I might add a plug for the USPHS residency training programs. I have been extremely pleased with the quality of training which I have received here. There are only two

Continued on page 36

Continued from page 32

fields where the program is deficient, that of female medicine and that of pediatric medicine. Otherwise we have an excellent selection of material, fine supervision, and ample responsibility. Thank you for your interest.

Name withheld at writer's request.

• *Your letter, with your name and hospital deleted, was referred for reply to the USPHS Hospital, Staten Island, N. Y. Answer follows:*

"Dear Doctor

I was somewhat surprised that you were not able to learn from the Administration of the hospital at which you are now serving your residency about your draft status. The Medical Officer in Charge and the people in personnel have been kept informed about the draft status of officers in the Service. Some of the local draft boards are not fully familiar with the status of Public Health Service officers, however.

"Effective July 1, 1957, the Universal Military Training and Service Act placed physicians, dentists and several other categories under the so-called "Regular Draft" provision. Under this provision, the Selective Service System is authorized to pass

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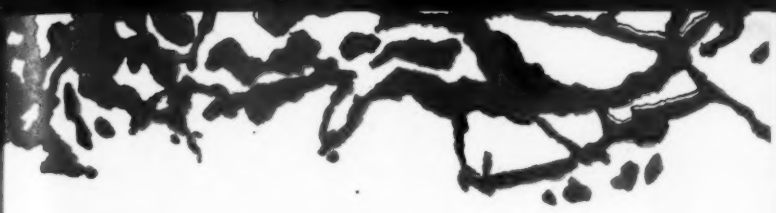

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Lederle

*Reg. U. S. Pat. Off.

Continued from page 36

over draft-eligible individuals who could expect to be selected for general duty and induct physicians, dentists and other specialists to meet special needs of the military services.

"Draft registrants such as you, can gain a statutory exemption from further training and service by serving two years of active duty as an officer in the Commissioned Corps of the U. S. Public Health Service. Periods of internship are not considered any part of the two years of active service required under the Universal Military Training and Service Act. Since you have already served twelve months with the Indian Service and twenty-one months as a medical resident, you have more than satisfied the requirements of the Selective Service Act.

"Although I am not familiar with the hospital to which you are assigned, I am glad that you find your residency training with the Public Health Service satisfactory. As you know, every effort is made to remedy the deficiencies of our program brought about because we have fewer than the ideal number of females and children. The Dependents' Medical Care Act has gradually increased the number of these two types of beneficiaries admitted to most of our hospitals. We expect this number to gradually increase. Where it is necessary, arrangements for affiliation with medical schools or hospitals are usually made.

"I would suggest that you give serious consideration to remaining in the Service as a career. Most career officers are highly satisfied with their Service experience. With the annual and sick leave benefits plus disability retirement and retirement after 30 years of Service, many benefits other than those of salary which are so important for the protection of a physician's family, are afforded. Probably more important than this is the fact that, in clinical medicine, physicians in our Service practice under conditions that are "almost ideal" from a professional standpoint.

"I would like to suggest that you take some time and sit down and discuss the problem that you have referred to in your letter and your future plans with the Medical Officer in Charge of your hospital."

John N. Bowden
Medical Director
USPHS Hospital
Staten Island, N. Y.

Reprints

As one of the interns who is new on your subscription rolls, I want to thank you for sending your fine and helpful journal to me. I have long been a close follower of your journal and its many fine helpful articles. I need no longer beg, borrow or steal a copy from one of the residents. Since my family and I are about to move to Detroit, I would certainly appreciate a reprint of the article on moving which appeared in the

Concluded on page 41

Concluded from page 42

May 1956 issue of the RP. Thanks, again, for adding interns to your mailing lists.

Craig W. George, M.D.
The Lankenau Hospital
Philadelphia, Pa.

During my two years of residency in the D.C. Hosiptal I have been a devoted reader of your helpful and well planned magazine and deeply appreciate the fact that I have been entitled to receive it every month. I am a foreign physician from Managua, Nicaragua and this coming June will be the end of my second and last year as a resident in pediatrics. On returning to my country I intend to start in private practice, and I would like to have some advice concerning the minimum and acceptable equipment for the office of a pediatrician. I understand one of your issues in the past approached the subject, but unfortunately I missed it. If this is so will you be so kind as to mail it to me.

Jorge Penalba-Ruiz, M.D.
D.C. General Hospital
Washington, D. C.

• *Reprints being mailed. Thank you for your comments on RP.*

Perrin H. Long, M.D.

Editor's Page

MEDICINE UNDER A STATE

The Plight of the Senior Registrars in Scotland

In the organization of medical practice and service under the National Health Service Act in Britain and North Ireland, the countries are divided into regions; by regulations under the Act, a certain number of specialists, called *Consultants*, are allotted officially to each region.

Parenthetically, it must be said at this point that except in a very few large cities in England where a few specialists, who were recognized as such before the passage of the National Health Service Act, still make a good living as consultants outside the National Health Service, a budding specialist attempting to solo would starve to death. Official appointment is an absolute necessity if one desires consultant status.

Under the original philosophy of various aspects of the Health Service as rendered by the Spens Committee to the Ministry of Health, it was envisaged that a consultant would be appointed in the National Health

Service at the age of thirty-two years. By that time he would have spent three years as house officer, probably two years with the military forces, and one or more years as a senior house officer and would have had status as a senior registrar. He also, if a surgeon, would have his F.R.C.S., if a physician, his M.R.C.P., and if an obstetrician, his M.R.C.O.O.G. These are essentially equivalent to having one's "Boards" in this country.

Let's see what actually has happened in Scotland. (The situation appears to be similar in England.[1]) In 1957 there were 250 senior registrars in Scotland. Of this group, 41 had been in their positions 4 or more years, and many others had had previous appointments in this grade. Their average age was 35 (already 3 more years than the Spens Committee envisaged) and at the extremes, the average age of these senior registrars varied from 32.6 years in the radiotherapy group to 39.4 years in the senior registrars in dermatology. In general medicine the average age was 36, while in general surgery it was 36.5 years.

There were, at the beginning of 1957, 897 Consultant positions in Scotland. The average age of the occupants of these positions was 48 with a range from an average age of 43.4 years for thoracic surgeons to 54.4 for Consultants in venereal disease. The average age of the general medical Consultants was 49.6 years, while that of the general surgical Consultants was 48.2 years. Consultants are required to retire from their official positions on reaching age 65.

Using general medicine and general surgery as examples, one finds in general medicine that there are 43 senior registrars. From January 1957 to January 1967, 32 Consultant vacancies will open in general medicine, thus leaving 11 of the extant senior regis-

trars in their same posts. In general surgery there were 36 senior registrars as of January 1957, and in the same ten-year period 26 of these will step into consultants' positions, while 12 will still be left waiting (that is, if they haven't gotten out).

Why has this happened? Simply because, instead of having a steady "feed-in" from 1948 on, a sudden intake occurred in the National Health Service in 1948-51, thus blocking any orderly, sequential promotion to the consultant grade.

Thus, these registrars are frozen in junior grades in which remuneration for their services is correspondently low. Salary scales and annuity allowances, as originally set up, visualized a steady rise with age and experience. But this has been blocked by this freeze in the junior grades.

The situation of these registrars is really very bad, and as Dr. Watson points out,[1] "with the escape routes to the Services, the Colonies and the Dominions almost closed, immediate action is required to rectify the grave position in which they (the senior registrars) find themselves."

Currently, it would appear that the only thing these senior registrars can do, would be to go into general practice, because in the National Health Service, that is all which appears to be left open for them.

Your editor feels that this country should not be closed to them, and that careful consideration should be given to the possible absorption of a portion of these well trained doctors into medical practice in this country.

1. Watson, Harnisch. "Promotion Prospects of Senior Registrars in Scotland," *British Medical Journal* Dec. 14, 1957.

SPECIAL REPORT

YOUR MILITARY SERVICE

Here is a preview of your first few weeks in the Armed Forces, a look at basic training for physicians as presented by the Army, Navy and Air Force.

to active duty...

Army orders to report for active duty are initiated by the Office of The Surgeon General or by an Army Headquarters in the United States and mailed to each individual officer.

Short cut

Abbreviations are used to save time and money, but to the novice they can be confusing.

Abbreviations most applicable to Army orders for new officers include "WP," which means *will proceed;* "TDN," *travel directed* is *necessary* in *military service;* "SA," Secretary of the Army. "EDCSA" refers to the date entered on active service, and is the date the officer should leave home en route to his designated station. "NLT" indicates the date on or before which he should report in to his station.

Travel

Travel to the Army Medical School may be either by common carrier (bus, train, or airplane) or by private vehicle. If desired, the new officer may report with his orders to the Military Transportation Officer at the nearest Army installa-

...in the Army

First duty station for Army physicians is Brooke Army Medical Center, Texas. Here, at the Army Medical Service School, they get their orientation into Army traditions and regulations.

tion and receive a transportation request exchangeable for tickets on commercial carriers.

In addition, a monetary allowance for each day of travel and reimbursement for certain incidental expenses is also payable on completion of travel when the officer presents the memorandum copy of the transportation request and submits a travel voucher.

The prescribed mileage allowance is also paid after completion of travel by private automobile.

New students receive their clothing allowance and travel pay about two weeks after arrival, so it is suggested that they bring about $200 with them to cover their expenses during this period.

Officers

Civilian clothing is the standard dress for newly commissioned officers during the first week at school. "Civvies" are also usually worn after duty hours. In San Antonio's semi-tropical climate, summer clothing is usually adequate. Light winter clothes will be necessary at times from December through March.

Officers report to the Officer Student Detachment, which is in the west end of the basement in Coers Hall, Building 2265, on week days from 7:30 AM to 4:30 PM. If arrival is after duty hours, the Adjutant's Office in DeWitt Hall, Building 2263, will give directions. In any event, the young officer should report as soon as he arrives in San Antonio so as not to be charged with non-duty time.

Quarters

Quarters are available on post for bachelor officers, or officers who do not bring their families. For this

reason, single officers electing to live off post will not receive a housing allowance. Officers with families will find numerous hotels and motels available for temporary housing during the 5½ week stay at Brooke. Rates are reasonable. There are comfortable motels within easy commuting distance from the post. Some offer housekeeping privileges, but cooking utensils and tableware may not always be adequate; linens are supplied.

Since San Antonio attracts many tourists, reservations should be made in advance to be sure of accommodations. Ample civilian rental housing is also available at rates comparable to other cities the size of San Antonio.

Training pattern

Actually, it usually takes most newly commissioned officers the entire 5½ weeks they are at the school to begin to understand the pattern behind their training, to feel comfortable in uniform and in saluting their fellow officers and returning the salutes of enlisted personnel they encounter. Saluting, incidentally, has nothing to do with either subservience or superiority; it is a courtesy and a privilege, a way of greeting another soldier.

First week

The first week at the Army Medical Service School is used to acquaint the newcomers with facilities available at Brooke Army Medical Center, including the Quartermaster Clothing Store, the Dispensary and Brooke Army Hospital for medical care, the Commissary and Post Exchange for shopping, chapels for all faiths, barbershops, cleaners, shoe repair shop, and child care center.

This period is also used to complete the numerous forms that must be filled out, to explain uniform requirements and allow opportunity for their purchase, and for initial orientation into military life.

There will be some military formations during this time, but they do not last for lengthy periods and there is no tough first sergeant to bark out commands.

Formations

Dismounted drill teaches young doctors to march in step, and to know the various drill commands. Aside from four hours of formal class time devoted to drills, students congregate in the School Quadrangle before classes start in the morning and at noon. It is at these times that they receive special instructions and messages to individuals regardings various appointments. The formations, to the accompaniment of the 323d Army Band, take about 15 minutes each, five days a week. And in a surprisingly short time the newcomers begin to present a sharp, military appearance as they step through their paces. With the possible exception of the first Saturday morning, which may be needed to

POINTERS

- **Report not later than the "NLT" date in your orders.**
- **Cost of transporting your dependents to Fort Sam Houston *will not* be defrayed by the government unless you are assigned there on a *permanent duty basis.***
- **Your permanent duty assignment cannot be determined until you have reported for active duty and have been interviewed by a representative of the Personnel Division, Office of The Surgeon General.**

complete processing, all week ends will be free.

Courteous officers and enlisted men assist in the paper work of entering the Army—all of which is necessary in order that the Army Medical Service may know all about each officer, and utilize him to the greatest advantage during his period of service.

Records

Documents to substantiate additional pay for quarters allowance for married officers, and for professional status by Medical and Dental Corps officers, will be needed upon arrival. A marriage certificate or a document from the church where the marriage was performed will serve for the former requirement, and will be returned to the individual after verification.

To satisfy the demands of Public Law 497, governing additional pay for physicians and dentists, however, *three* copies will be required of medical or dental school diploma, transcript of credits, or other documents attesting to dates of attendance at medical or dental school and medical internship. These substantiating documents *will not be returned.*

Most reserve medical officers have had a physical examination report included in their permanent records, and these need not be repeated if completed within the past year.

Meals

The freedom of choice as to housing also pertains to meals. The mess hall at the school offers well-prepared, well-balanced, tasty meals for considerably less cost than any civilian restaurant, and is conveniently located in the school quadrangle.

Also available is the Army Medical Service School Officers' Open Mess for snacks during the day, and mixed drinks and a limited choice of meals after duty hours. The Post Exchange Cafeteria and other officers' clubs on post serve regular meals. Texas laws, incidentally, forbid the sale of mixed drinks away from the military reservation; beer

and wine are served, and the individual is allowed to bring his own liquor bottle and order mixes and ice for mixed drinks in public places.

San Antonio offers a variety of easily accessible restaurants whose prices range with their atmosphere, and catering to the tastes of all nations; the only limitation is in personal desires.

A reception is held by the commandant soon after new classes arrive, and at this time new students and their wives are introduced to staff and faculty members of the school and their ladies. There is an opportunity for much social life in the Army, but all officers are urged to limit their social engagements to that within their financial means. Young officers are not required or expected to entertain lavishly.

Training

With the start of formal classroom instruction, new officers have their actual introduction to military life. Those physicians in the U. S. Army Reserve on active duty for only two years will enter a 5½-week military orientation course and then be sent to Army installations throughout the world. Transportation costs for dependents in this group will not be paid to the School as government travel is authorized only for a permanent change of station.

Those who have elected and been accepted to join the Regular Army will enter a 22-week course which delineates the responsibilities of medical officers who may expect to command medical troops up through company level. Travel pay is authorized by the government for dependents of this group as the long-term course constitutes a permanent change of station. These officers, upon completing their instruction, will be sent to medical residencies at Army hospitals.

Both groups learn the latest organization of the Army, functions of all branches of the Army, organization of other military forces, and how the Medical Service cooperates with all of them. They also study military law, military medical records, and medical supply. Instruction is given not only in formal classrooms, but in outdoor instruction areas where convenient, and in the field of realism. Most instruction is enlivened by expedient use of unusual training aids.

The final week of classwork for the USAR officers covers specific needs of the Army doctor. Physicians learn, from instructors who have actually experienced it, how battle field surgical procedures differ from emergency operations performed in well equipped and staffed civilian hospitals. They also are briefed in recent innovations in preventive medicine, field sanitation, patient evacuation, and military medicine and surgery, as well as psychological, chemical - biological - radiological, and nuclear warfare. A field demonstration of an infantry

division in attack gives graphic illustration of how the Medical Service supports combat troops.

Field problems

In the long-term course, physicians establish a bivouac in a one-week field problem known as "Exercise Buckhorn." Here they have intensified experience with all the activities given to enlisted men in basic training, including weapons familiarization and firing, close combat, the infiltration course, mine detection and marking, poison gas attack, and map reading. They also play the role of the Medical Service providing medical care in the field from time of injury and first aid by an aidman, through a sorting station where initial life-saving measures may be instituted by various means of evacuation to a clearing station and mobile surgical Army hospital.

This training is as realistic as can be, short of actual warfare; it is complete with exploding ammunition (blank), tracers fired at night, barbed wire entanglements and simulated (with theatrical make-up and rubber moulages) casualties.

Recreation

All student officers at the School are encouraged to participate in physical recreation to keep them in top condition. Available on post are swimming, bowling, tennis, horseback riding, field archery, and other individual sports, as well as very active medical center teams in football, baseball, soccer, and basketball. The Fort Sam Houston Golf Course is on the post, and the cost of club memberships or greens fees are very reasonable for military personnel and their dependents.

Not too much outside study is required of officers in the short orientation class and there are no examinations. The longer session, however, is a highly competitive course offering opportunities for staff studies and individual research. Assistance in these studies may be obtained from the capable and cooperative librarians at Stimson Library, a complete medical reference library located in the Quadrangle area. The Skinner Medal and certificate are awarded to the physician in this class receiving the highest scholastic rating.

Assignment

A never-ending source of interest to the new Medical Corps officer is "Where will I be assigned next?" Each man is interviewed early in his course to determine his background experiences and preference of assignments. Orders are issued for the USAR physicians during their fourth week at the School, and well before the graduation date of the Regular Army officers.

No guarantee is given, but when possible the Army tries to place each man in the area he requests if there is a need for a man with his qualifications. Typically, some of the incoming USAR officers may ex-

pect overseas assignments wherever United States forces are stationed.

Trips

Leaves are not granted to students except for emergency reasons, but weekends and holidays are adequate for much sight-seeing. San Antonio is a very picturesque city, with the winding San Antonio River flowing through the heart of the business district, La Villita and the Spanish Governor's Palace displaying the color of Old San Antonio, and the many historic old missions, including the famous Alamo. At Brackenridge Park there are the Whitte Museum, the country's fifth largest zoo, the unique Chinese Garden and the Sunken Garden Theater.

Near enough to San Antonio for weekend trips are Monterrey and border towns of Mexico, the Gulf of Mexico with its deep sea fishing and beaches, the lakes of Central Texas offering fishing, boating, swimming, and camping facilities, or the desert and mountain area to the west.

Graduation time brings an experienced leader, usually a general officer in the Medical Corps, to give a final bit of advice to the physicians. Then, belongings and families loaded in cars, the exodus begins. The newest groups of Army Doctors start for their first permanent military assignments with pleasant memories of their experiences at the Army Medical Service School, and proud of wearing the uniform of the United States Army Medical Corps.

Special Report

YOUR MILITARY SERVICE

active dut...i

All newly commissioned Air Force medical officers are given four weeks of basic training at Gunter Air Force Base, near Montgomery, Alabama.

The Gunter Branch of the School of Aviation Medicine was established in 1950 to meet the expanding instructional needs of the USAF Medical Service. At present, 44 different courses are conducted at the School, the content of the courses and objectives of the instruction covering the range of medical specialties and allied services needed for military medical treatment.

Officers who apply and are selected for training in Aviation Medicine also attend the nine-week Primary Course in Aviation Medicine conducted at The School of Aviation Medicine, Randolph Air Force Base, Texas.

First stop for physicians going on active duty with the Air Force is the orientation course at Gunter Branch, School of Aviation Medicine. Here is a look at the Gunter program.

F. L. Holihan, Lt. Col., USAF, (MSC)

...in the Air Force

The Primary Course in Aviation Medicine, taken after completion of the basic course at Gunter, is designed to acquaint the physician with principles of Aviation Medicine and provide the fundamental knowledge of basic sciences necessary to its practice.

The BOC (basic orientation course) at Gunter provides new officers with a general understanding of the organization, functions, and traditions of the Air Force and its medical service; with some specific information on the duties, responsibilities, rights, and privileges of an Air Force officer; the mission of the Air Force Medical Service and how it is organized, administered and operated, with special emphasis placed on the medical team concept; specific medical and administrative problems related to the military service and to military aviation; preventive medicine, and instruction in the medical aspects of nuclear warfare and disaster casualty control.

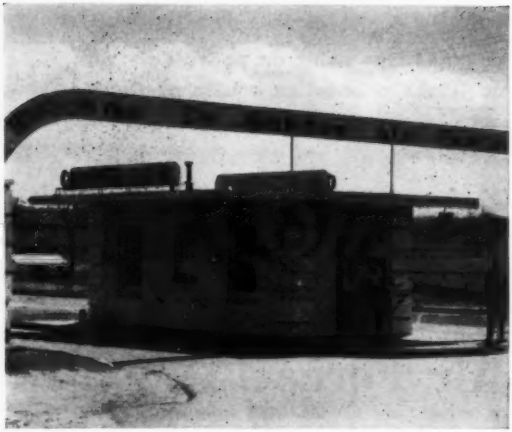
When the orders calling an officer to his first tour of active duty are received, the officer will usually find that he has about 30 days in which to prepare to report for duty.

Orders

As soon as Special Orders are received indicating that the new officer is to attend BOC he should arrange for his transportation so that he will arrive at Gunter Air Force Base on the date indicated in the orders.

If there are any changes or amendments required in the Air

COLONEL HOLIHAN is Deputy Chief, Medical Liaison and Selection Division, Office of the Surgeon General.



Basic training for Air Force officers is conducted at the Gunter Air Force Base. All physicians who volunteer for active duty in the Air Force are assigned for training at Gunter, later reassigned for permanent duty by the Surgeon General according to individual officer requests and the needs of the Air Force.

Force Orders calling the officer to active duty, the Director of Medical Staffing and Education, Office of the Surgeon General, Headquarters United States Air Force, Washington 25, D. C. (Telephone Liberty 5-6700, Extension 69281 or 69827) should be so informed. That office should also be notified if sickness or a personal emergency arises to prohibit reporting to the School of Aviation Medicine on the date specified in the orders.

The School does *not* have the authority to grant delays in reporting to Gunter Air Force Base.

These Special Orders calling an officer to active duty are mandatory and must be complied with unless prior approval has been obtained from Headquarters USAF.

Should it be necessary to contact the School, correspondence should be addressed to the Adjutant, 3882d School Group, Gunter Air Force Base, Alabama, Phone AM 2-6661, Extension 4171.

Travel

Officers are not encouraged to bring their dependents to the Montgomery area for this short course. There is no on-base housing for families of students, and short-term

Terms Used in Air Force Orders

PRIMARY AIR FORCE SPECIALTY (PAFS)—The recorded Air Force Specialty (AFS) in which a person is considered best qualified to perform duty.

DUTY AIR FORCE SPECIALTY The Air Force Specialty under which a person is actually assigned for regular duty. The duty AFS is not necessarily the primary AFS.

COMPONENT Any one of the major membership branches of USAF, i.e., the Regular Air Force, the Air Force Reserve, the Air National Guard of the United States, or the Air National Guard while in the service of the US.

GRADE A person has a rank; he is in a grade.

MC Medical Corps. Designation of commissioned physician, USAF (MC).

DATE OF RANK (DR)—The date according to regulations, from which an officer or airman holds a specified rank.

PROMOTION SERVICE DATE (PSD) — Date from which an officer's service in his current Reserve of the Air Force grade is computed.

FOREIGN SERVICE SELECTION DATE (FSSD) —The date a person arrived within the US after completion of a foreign service tour of duty.

AERONAUTICAL RATING One of the several ratings conferred by competent authority upon a member of the AF who has completed the requisite training and has been engaged in duties which require frequent and regular aerial flights.

NON-RATED Not having or not requiring a currently effective aeronautical rating.

FLYING STATUS The status of a person in the AF who is currently authorized to participate in regular and frequent aerial flights. (Either rated or non-rated persons may be placed on flying status and draw flying pay.)

SOURCE OF COMMISSION—AFM 36-5 Air Force Manual 36-5 entitled, "Appointment of Officers in the USAF as Reserves of the AF." This manual outlines the procedures for applying and processing applications for commissions in the Reserve of the Air Force.

EXTENDED ACTIVE DUTY (EAD) Any period of active duty in excess of a designated number of days, currently in excess of ninety days.

TEMPORARY GRADE A grade held by a military person in accordance with a special schedule established during a period of emergency or special circumstance.

TEMPORARY DUTY (TDY) Duty performed away from the organization or station to which assigned or attached, usually for a limited period of time.

EDCSA Effective date of change of strength accountability.

FIELD PERSONNEL RECORD Certain current records and papers maintained on an individual in the field by the organization to which assigned or attached. May include medical and dental records, flight records, etc.

SECTION 8443, TITLE 10, USC Title Ten, United States Code codifies statutory law relating to the military aspects of national defense.

TRANSACTION IDENTIFICATION NUMBER INITIAL/ADN-001 An administrative method which indicates one who is ordered to active duty for the first time.

DELAY Postponing the tentative or actual date specified for a reservist to enter active military service. The term "delay" is not to be confused with "deferment," which is used to refer to a Selective Service registrant whose entrance into active military service is postponed under Selective Service regulations.

READY RESERVIST A reservist who may be ordered to active duty involuntarily in time of war or national emergency declared by Congress, a national emergency declared by the President, or when otherwise authorized by law.

STANDBY RESERVIST A reservist who may be ordered to active duty involuntarily only in time of war or national emergency declared by Congress, or when otherwise authorized by law if Selective Service System has determined he is available.

ISLRS Inactive Status List Reserve Section.

IRS Ineligible Reserve Section.

NARS Nonaffiliated Reserve Section.

ARRC Air Reserve Records Center.

rentals in the Montgomery area are comparatively expensive and difficult to obtain.

Officers are advised against shipping household goods to their permanent duty station prior to reporting at Gunter.

Under no circumstances should an officer take it upon himself to contact a commercial mover prior to contacting the transportation officer. The School has on hand, and readily available to the student, information relative to on-and-off-base housing at most Air Force bases. The officer should contact the transportation officer at the nearest air base or other military installation or recruiting activity where, on presentation of his orders, he may arrange for the movement of his household goods and effects.

Should an officer desire, the transportation officer will provide transportation to this school via commercial carrier. If travel by commercial means is desired and a transportation officer is not located nearby, an officer may be reimbursed for transportation purchased at his own expense. Travel by privately owned vehicle is authorized at the rate of 300 miles per day.

Records

The officer should be certain to bring with him, on his person, all copies of orders received, all personnel records, and all other pertinent documents which bear upon his military service or appointment as a commissioned officer. For example:

1. Discharge certificate of all prior service, such as ASTP, V-12, or similar programs, enlisted or commissioned service, active or inactive.

The old jokes about ill-fitting uniforms have little meaning in the new Air Force. Proud of the sharp appearance of its officers and men, Air Force policy demands expert tailoring with emphasis on proper fit. Here at the Base Exchange, civilian tailors outfit new officers.

Recreation and entertainment facilities at Gunter provide officers in training an opportunity for relaxation on the station during off-duty hours.

2. Any papers or special orders showing effective dates of duty and separation therefrom.

3. Social Security card.

For those officers who have been in the internship program under USAFIT, it is extremely important that the proper steps be taken to have military pay records forwarded to the finance officer at Gunter Air Force Base. Failure to do so will mean a delay in receiving pay while at Gunter. (The first three days of BOC are used for the preparation of records and for physical examinations.)

Orders assigning an officer to the School of Aviation Medicine include a date of reporting. The orders will be complied with if the officer reaches Gunter and reports to the proper official prior to midnight of the prescribed date.

Reporting

Reporting to the Base may be effected at any hour of the day or night. Officers arriving at civilian airports, railroad or bus terminals may get to the Base by taxi or by civilian buses, which run on regular schedules. Airmen on duty at the main gate will direct the incoming officer to the base billeting office where he will sign the officer register and be escorted to the quarters previously reserved for him.

Clothing

Wearing of the uniform during the first week is optional. It is not advisable to purchase military uniforms prior to entry in the course. Ample opportunity and assistance is provided in purchasing the necessary clothing after reporting to class.

Clothing stores are available and the initial uniform allowance for eligible officers can be obtained from the finance office approximately five days after arrival. However, it is recommended that new officers bring as much civilian clothing as will be needed for their first permanent duty assignment.

Legal assistance and counsel will be provided to all officers on a personal basis to cope with any legal problems which might arise. The relationship established between the officer seeking advice or help of a legal nature, and the person rendering assistance, is that of an attorney and client, and is confidential in a legal sense.

All officers assigned to overseas stations are required to receive certain immunizations prior to departure from the United States. These immunizations will be provided during the course.

During the time at Gunter, on-base recreation is available in the form of base theater, swimming pool, officers' club, hobby shop, picnic area, gymnasium, golf driving range, and tennis courts. For those interested, boating, water skiing and fishing are available on Lake Jordan and Lake Martin which are a short distance from Gunter. The beach area in northwest Florida and southern Alabama is close enough to make a pleasant and restful weekend trip. Two libraries on the base provide excellent recreational and professional reading materials.

Special Report

YOUR MILITARY SERVICE

active dut...

During the summer months o 1958 some 550 physicians wil exchange their civilian suits fo Navy officer's blue uniforms. About 250 of this number will report for active duty in the Navy on comple tion of their civilian internships. Another 220 physicians, previously deferred from active duty in order to obtain residency training in one of the clinical specialties at civilian institutions, will report for active duty in the Navy.

Naval customs

As a general rule, physicians reporting for their first active naval duty are temporarily ordered to a hospital for an eighteen day period of indoctrination conducted at six naval hospitals in various geographical locations, including Oakland, California; Great Lakes, Illinois;

In the next few months more than 500 physicians will don Navy blues with the gold stripes and Medical Corps oak leaf on the sleeves. You may be one of them. Here's what's ahead.

...in the Navy

Philadelphia, Pennsylvania; Chelsea, Massachusetts; St. Albans, New York; and Portsmouth, Virginia.

This indoctrination is primarily military, rather than medical, since these physicians have been professionally trained before reporting to active naval service. The military aspects of active naval duty and naval customs are discussed, as well as many of the duties and responsibilities of naval medical officers in various assignments at sea and ashore. This period of indoctrination is conducted for the purpose of acquainting the physician with naval customs and methods and, in addition, to facilitate the transition from civilian life to the Navy.

Letter

Almost without exception, orders for active naval service will be in the form of a letter, rather than a message-type of orders. (In message-type orders, abbreviations are used which may be somewhat difficult to interpret, but orders in letter form are usually understood without difficulty.)

A brief definition of some of the more commonly used terms and phrases in naval orders will assist physicians who anticipate reporting for active naval service. Terms used in orders to naval officers are presented in this discussion.

Proceed

"Proceed" means report within four days, exclusive of travel time, following date of detachment. Reserve officers are not entitled to proceed time when ordered to active duty or when proceeding to their homes upon release from active duty.

Civilians commissioned in the Regular Navy are not entitled to proceed time in carrying out their first orders to duty.

When an officer is detached from one permanent duty station and is ordered to another permanent duty station and his orders fix no date and do not express haste, four days proceed time (in addition to travel time) are allowed in reporting to the new duty station.

When an officer is detached from one permanent duty station, and is assigned temporary duty enroute, proceed time is allowed only upon detachment from the permanent duty station, and prior to reporting at the temporary duty station. No additional proceed time is allowed under such orders, and any proceed time not taken prior to reporting at the temporary duty station may not be taken after completion of the temporary duty.

Travel

"Proceed without delay" means the officer must report within 48 hours, exclusive of travel time, following receipt of orders.

"Proceed immediately" — report within 12 hours, exclusive of travel time, following receipt of orders.

"Proceed on or about"—travel should be commenced within a discretionary period of 10 days on either side of the date given in the orders. This phrase is used only in temporary additional duty orders.

"Proceed in time to report on a certain date"—the latest or limiting date to commence travel will be four days plus travel time in advance of the specified reporting date. The proceed time may be taken before or after the travel time, if the officer is authorized proceed time.

"Travel time"—when travel is involved under orders, actual travel time is in addition to the proceed time allowed before reporting. Travel time is counted in whole days, and is computed on the basis of travel over a usually traveled route by a facility affording through service when available. No travel time shall accrue on orders directing change of stations, both of which are located contiguous to each other, and not requiring travel by common carrier as that term is generally known.

When traveling by rail the distances are determined from official mileage tables or the Official Railway Guide. Travel time by rail is generally calculated at a rate of 720 miles per day in accordance with existing tables.

When travel is performed in a privately owned vehicle in carrying out permanent change of station orders, 1 day per 250 miles shall be the rate used in computations to determine the day of reporting. The distance between duty points shall be computed by the shortest usually traveled route as shown in official mileage tables. Any distance of 100 miles or greater in excess of 250 miles or multiples thereof shall be

credited as an extra day. When orders direct or authorize travel by aircraft, and such transportation is used from starting point to destination, travel time shall be counted in whole days.

Detach

"Hereby detached" — if possible, the commanding officer should detach the officer within 24 hours after the orders are received.

"Detached on or about" — the commanding officer will have a discretionary period of 10 days on either side of the given date, during which period the officer concerned should be detached.

"Detached when directed" — orders should be endorsed to detach the officer within 10 days after receipt of the orders.

"Detached when relieved" — orders should be endorsed to detach the officer within 10 days after the reporting of his relief.

"Detachment in time to proceed and report on a certain date" — the latest or limiting date of detachment will be 4 days plus travel time in advance of the specified reporting date.

"Report" — report within four days following date of detachment. The day of detachment is a day of duty. When an officer is detached from one permanent duty station, the orders fixing no date and not expressing haste, four days are allowed in reporting to the new duty station. The officer must report within four days and not after four days.

As a rule physicians reporting for their first active naval duty will receive letter orders which will specify that he will report for a physical examination and if he is found to be physically qualified will further report to the commanding officer of one of the indoctrination hospitals by a specific date for temporary duty under instruction. These orders may also include further assignment to a permanent duty station after completion of the indoctrination. If the permanent duty station assignment is not included in the original orders, further orders will be issued during the indoctrination period. A period of leave is usually authorized following completion of the indoctrination before reporting to the permanent duty station in order to give the physician time to take care of personal matters or to take a brief vacation.

Utilize experience

The Navy's Bureau of Medicine and Surgery makes every effort to assign a physician who has completed his formal training in a clinical specialty to a billet commensurate with this training and in an assignment where this valuable experience and knowledge can best be utilized.

Physicians in this category are usually assigned to one of the naval hospitals, station hospitals, or dispensaries if the requirements of the Service will permit. These assign-

ments may be in the United States or on foreign shore.

There are twenty six naval hospitals at the present time and of these, eight are approved for residency training in the various clinical specialties.

Fourteen naval hospitals are fully approved for twelve month rotating internships. A physician who reports for active naval service following completion of his internship may be assigned to one of a variety of duties, including hospitals, station hospitals, dispensaries, fleet units, the Fleet Marine Force, amphibious units, submarine units, aviation units, or others. Further specific indoctrination is given to physicians before they are assigned to many of these billets. For example, a medical officer attends a four week period of instruction and indoctrination at one of the Field Medical Service Schools prior to his assignment to a Fleet Marine Force unit. Medical officers are also given additional indoctrination before they are assigned to amphibious units, destroyers and some other sea duty billets. These periods of indoctrination better acquaint the medical officer with their specific duties and responsibilities in these various assignments and as a result these tours of duty are much more enjoyable and duties are performed more efficiently.

There are some very excellent overseas shore billets for naval medical officers, but unfortunately these are limited in number. Ordinarily a tour of sea duty is from 12 to 15 months, following which medical officers are assigned to a shore duty assignment. Some medical officers will originally have a shore duty billet, while others will be assigned to sea duty or an overseas shore assignment.

Residency

Approved residency training in every major clinical specialty and subspecialty of medicine and surgery is available through the Navy residency training program. The calibre of this training in the Navy is maintained at a high level and all are approved by the various specialty boards and by the Council on Medical Education and Hospitals of the American Medical Association. Training opportunities and assignments are currently available in the various military medical specialties, including aviation, submarine, nuclear, preventive, occupational, field and amphibious medicine and special weapons defense. Certain aspects of training in these fields can count toward certification by certain specialty boards.

With the augmentation in the submarine and nuclear propulsion program there is a distinct and urgent need for medical officers trained in the field of radiobiology and nuclear medicine. Inquiries regarding training or assignment in any of these fields are invited and additional information may be obtained by writing to the Chief, Bureau of

Medicine and Surgery, Department of the Navy, Washington 25, D. C.

Rank and pay

It is anticipated that nearly all physicians who report for their first active duty during the summer of 1958 will be given the rank of Lieutenant or will be promoted to that rank shortly thereafter. The current base pay* for a Navy Lieutenant is $374.40 per month.

In addition, he will receive $47.88 for subsistence allowance and $102.60 for quarters allowance each month if he is married or has other dependents and has had no previous military service. Those physicians who have completed their internship will receive $100 a month incentive pay, making a total of $624.88 per month. After two years of active service as a medical officer he will receive an additional $50 a month; after 6 years active service this incentive pay is increased to $200 a month; and after 10 years active service as a medical officer to $250 a month. Of course, promotions and longevity pay will further increase this pay as time goes on.

It is sincerely hoped that those physicians who anticipate active naval service in the near future find their duty to be most interesting and professionally rewarding. The Surgeon General of the U. S. Navy would like to take this opportunity to welcome you aboard. If you are in the Washington area you are cordially invited to drop in to the Bureau of Medicine and Surgery to discuss your career plans, your professional desires, and your personal problems with naval medical officers. If it is inconvenient or impossible for you to come in to the Bureau to discuss these matters you are invited to write to the Chief, Bureau of Medicine and Surgery, Department of the Navy, Washington 25, D. C. Every effort will be made to make your tour of duty in the Navy pleasant and to assist in your continued professional growth.

* Pay figures do not include increases in Service pay authorized by Congress as this article went to press.

Dr. Abbott's

PILLS and PRINCIPLES

With a loan, a new suit and unlimited confidence, Dr. Wallace Abbott left his native Vermont to become a successful general practitioner in Chicago. Recalling a medical school lecture, he began preparing his own medicines. Soon he was making them for others . . .

Wallace C. Abbott's career, from the time he left his parents' farm until he established himself as a successful physician and business leader, can best be described in two words: operation bootstrap.

He was born October 12, 1857, in Bridgewater, Vermont, an area of wooded hills and mountains. Fields cleared for farming were rocky, demanding sweat and perseverance for small returns. The Abbotts, like other farm families there, were lucky to eke out a living.

Young Abbott grew into a stocky, deep-chested boy who could do a man's work: milk cows, saw wood, lug bags heavy with feed. The life was stern but healthful. Though Abbott knew it was "an honest man's work," he also felt it held little promise for the future.

The boy had an inquiring mind and driving ambition.

He not only wanted an education but had a longing to become a doctor. His father thought these desires foolish. Wallace's place was on the farm, and besides, where was the money for an education to come from? Education was for the sons of the rich.

Abbott's mother, who was perhaps closer to the boy, sensed the earnestness of his ambitions and encouraged him in them. She told him he could get an education if he wanted it badly enough.

So it was with his mother's blessing, his father's grudging consent and almost no money that he entered Randolph State Normal. His years there and later at St. Johnsbury Academy were years of work and study; he earned a certificate to teach in the public schools.

He lived frugally and added to his income by contracting, along with another student, to saw wood for nearby farmers. Early mornings, evenings after school and Saturdays were occupied in this work. In addition the young scholar organized a student's boarding club, getting his own board free for taking care of the collection of dues, the buying of food and general supervision.

He was a good student. Professor W. F. Rochelieu, one of his instructors, stated that when Abbott entered the State Normal School (the fall of 1877), he was already a thorough scholar and had a fund of common sense which enabled him to apply himself in a practical manner.

West beckons

"Not only in scholarship was he a leader," wrote Rochelieu. "In the student organizations and in those movements having for their purpose the general uplift of the student body, his ability as an organizer and counselor gave him a prominent place. He was always at the front in all good works."

Abbott took his first course in medicine at Dartmouth College in Hanover, New Hampshire, not far from his home. After only a few months, however, he decided to head west. The reason for this decision is not clear—perhaps he felt there was more opportunity for him in the expanding midwest, or perhaps it was just his restless ambition driving him on.

His aim was to continue his medical education, but his choice of school was limited by strained finances. He wrote to a number of colleges asking what they could offer a student who had to work his way through. He received the most encouragement from the University of Michigan, and so left New England for Ann Arbor.

Go anywhere

To provide for his basic needs he found a job as a janitor in one of

Dr. Abbott and his original staff are shown with him on the steps of his home. This is where Abbott Laboratories had its beginnings.

the university's buildings. This was his austere home for the next two years. He slept in a small room, under the stairs, which he and fellow students fixed up as well as they could, building book shelves, a table and stools. Later, Abbott earned part of his expenses and gained experience by working as a nurse.

He received his M.D. degree in 1885, completing the three-year course in only two years. It was a back-breaking experience even for this energetic son of New England. "I do not recommend others to do it," he said.

He went to one of his professors, Dr. Victor C. Vaughan, whom he greatly admired, and asked his advice as to where he should locate a practice—in the city or the country.

"Go anywhere, Abbott," said Dr. Vaughan. "You will succeed wherever you go."

As usual

Abbott was broke as usual, but so used to it by this time that it caused him little anxiety. He felt that all he needed was the proper opportunity and he would establish himself on the black side of the ledger.

He returned to Vermont where he located with an old doctor who wanted him to become his partner and ultimate successor. But Abbott could not forget the midwest which to him seemed a land of wide horizons, vigor and enterprise—a young man's country. After only a few months in his home state he bade the old doctor goodbye and headed for Illinois. His destination was Ravenswood, a suburb of Chicago, where he had learned of a physician who wanted to sell his practice and retire. With borrowed capital, a new suit and a plug hat, Abbott set himself up as the new GP in Ravenswood.

Time of change

This was in 1885, a time when Chicago was assuming its role as industrial and commercial center of the midwest. The city was growing at a tremendous rate. In 1880 its

In the early 1900s the Abbott Alkaloidal Company showed signs of real expansion. The company's growing office staff worked in a frame house, adjacent to the pharmaceutical plant.

population had passed the half-million mark; in 1890 it would go over one million.

But growth rarely is a smooth and painless process. With the rapid development of industry, Chicago was the scene during the '80s and '90s of dramatic labor upheavals. In 1886 the city was rocked by the bloody Haymarket riot, and in 1894, federal troops were called in during the Pullman strike.

At the same time the city developed rapidly as a cultural and educational center. In 1893 it gained international attention with its World's Columbian Exposition, a world's fair in celebration of the discovery of America.

Strikes, violence, expansion, growth. Young Dr. Abbott could hardly have found a more lively environment. It did not take him long to prove himself a good doctor, and within a year's time he had wiped out his debt and become a married man.

Four lectures

His quick success in his practice was due to his forceful personality as much as his skill. Though young and inexperienced, he impressed his patients as a man who knew exactly what he was doing.

As his practice grew so did his dissatisfaction with the ill-tasting and often undependable water or alcohol drug extracts in use at the time. There was, he felt, some better way of preparing and administering these remedies.

In the back of his mind was a series of lectures at the University of Michigan by his former teacher, Professor Vaughan, on "Four Remedies and Their Active Principles." These remedies were nux vomica, digitalis, aconite and opium. In later years Dr. Abbott often said that these lectures were of more value to him than anything else presented to him in his medical course.

As a general practitioner, he gave a lot of thought to these drugs and their application. He became convinced that the use of the active principles was the solution to the problem of drug uncertainty.

Dosimetrists

About this time, news of the French school of dosimetrists founded by Dr. Burggraeve began filtering into U. S. medical circles. Burggraeve was a surgeon who, after 40 years of practice, had turned his interest to clinical experimentation and medical theory. His ideas had brought him into conflict with the medical fraternity in his native Belgium, and so he had gone to France.

At the close of the Franco-German war in 1871 he became associated with a retired chemist and

pharmacist, M. Charles Chanteaud, who helped him in developing alkaloido-therapy, or active principle medication.

Burggraeve advocated the use of only the minute effective fraction (active principle) of drug plants instead of their water or alcohol extracts, as was the practice. This active fraction could be compressed into a tiny granule or pill, which was a precise dose as well as easy for the patient to take.

Small supplier

Abbott, it is thought, was one of the first American physicians to appreciate the value of Dr. Burggraeve's method and the effectiveness of alkaloidal medicines. When he learned of a small American concern which was producing dosimetric remedies, he obtained some for use in his practice.

But he ran into trouble with his supplier. Not only was the doctor unable to get medicines when he needed them, but he became convinced that some of the supplier's business methods were not ethical. Claiming he had not been treated "on the square," Abbott told the manufacturer in a stormy exchange that he would "see him in South Chicago" before he bought another pill from him.

Though he didn't know it, the drug supplier had become a benefactor of humanity. For that same afternoon in 1888, Abbott, still fuming, decided he would make his own medicines; he stormed up to his attic and began to prepare his "laboratory."

Thus began Abbott Laboratories.

The doctor found the granules he produced to be far more dependable than extracts; also, his patients liked them because they were pleasant to take and convenient to carry. Abbott, pleased with these results, began to offer his medicinals to fellow practitioners. His first outlay for advertising was 25c for four lines in the *Medical World*. It brought $8 worth of orders, which definitely put him in business.

With a busy practice on his hands, the doctor could spare little time for pill making. It was not long before he had to hire girls to do the actual processing. The business grew, necessitating moving it to an old frame house near his home. In time this house, even though it had been expanded, gave way to several larger buildings.

Failures, too

For a number of years the business was conducted under the doctor's own name, but in 1900 it was incorporated as the Abbott Alkaloidal Company. The name was changed in 1914 to Abbott Laboratories, and in 1921 the first build-

ing was started at the company's present site in North Chicago.

Like its energetic founder, the company was quick to make use of new discoveries in its field. When biological preparations were developed, the company began to produce them. It started to make definite chemicals, beginning with the sulfo-carbolates, and during World War I assumed a prominent place in the manufacture of synthetic chemicals.

The history of the company, however, is not simply a record of success following upon success. There were failures, too. Serious money losses through poor investments, bank failures, and buildings ruined by fire, all hit the young company hard. But Dr. Abbott proved himself equal to these misfortunes.

"More smoke"

"Back up and try again," was the way Abbott would put it when operations ran into a snag. He was in the habit of personally checking the flow of work, popping up in a lab one day, the shipping room the next. When he felt a push was needed, he wasn't afraid of speaking his mind. Employees knew exactly what he meant when he said, "I want more smoke," or when he circulated a note reading: "Everybody get busy —The Doctor."

Notes from him to his employees, to those in low position as well as executives, were a common occurrence. Many of these found their way out of his "memory rester," a small black notebook that he carried with him at all times. He could be seen penciling in reminders and observations almost any time of day; many of these notes later were put into practical use in his business or practice.

A good boss

Though he seemed to be always on the go, he rarely was too busy to confer quietly with his workers. Those who remember him well characterize him as a boss who was genuinely interested in the welfare of his employees. He expected a "square deal" from them, and in return was generous and considerate. Abbott's attitude bred loyalty and cooperation, and many a visitor to the plant came away impressed by the spirit of friendliness among the workers.

For some years Abbott carried on his practice while heading the laboratories, yet put in as much or more time than any of his workers. "Do it now!" stated a sign he kept on his desk. If ever a man didn't need such a reminder, it was Dr. Abbott, who appeared able to do three things simultaneously.

Abbott's role as a manufacturer led him into another field, publish-

ing. Back in 1894, when he first started his laboratory, he found that the "active principle" theory was not generally understood by physicians. If his laboratory was to stay in business, he realized he would have to conduct an educational campaign among doctors.

The result was the establishment of a medical journal called *The Alkaloidal Clinic*, a name later changed to *The American Journal of Clinical Medicine*. It was successful almost immediately and became a widely read medical monthly.

In addition to being a GP and a pharmaceutical manufacturer, the doctor now found that he was an editor and writer as well. He applied himself with characteristic zeal and turned out prodigious amounts of copy.

His writings mirror the practices and knowledge of the American physician before the turn of the century.

"Clean out . . ."

Dr. Abbott reminded his readers to "clean out, clean up and keep clean," and advised them "not (to) treat 'named diseases.' Diagnose closely, and meet underlying patho-

Photo taken around the turn of the century shows Abbott's processing room.

logical conditions with the right remedy in a positive, active form and in small dose, repeated at intervals to effect—remedial or physiological."

His knack for getting a message across concisely is evident in a paragraph such as this: "Essential success points in the treatment of the sick: Equalize the circulation, eliminate waste, stop autoxemia, maintain systematic asepsis, stimulate innervation, and feed the tissues."

His forcefulness and directness were such dominant traits that they created a larger than life impression. "I thought you were a big tall fellow," was a common reaction of many meeting him for the first time.

Dr. Abbott died in 1921, at the age of 64, but the growth of his laboratories continued. In 1922, Dermatological Research Laboratories of Philadelphia was purchased; and in 1928, John T. Milliken and Co. of St. Louis; its production facilities were transferred to North Chicago, adding to the growing line of products for the druggist and physician. The Swan-Myers Company of Indianapolis was acquired in 1930.

he finishing department where granules were bottled, labeled and packed for shipment.

Memorials

Dr. Abbott's widow followed him in death after two and one-half years. In her will were provisions fulfilling the often expressed desires of the doctor and herself.

For those who were closest to him, the employees of his company, a foundation was established with shares of Abbott stock. Called The Abbott Foundation, its purpose was to provide financial aid to any Abbott employee in case of unusual need. Through the years its earnings have quietly relieved the financial distress of serious illness or other misfortune of hundreds, and has provided educational assistance for children of employees.

Students always found inspiration in the doctor, especially those in the field of his life's work—medicine. At Northwestern University's Chicago campus they are reminded of him by Abbott Hall, a multi-storied residence hall erected from funds left to the University by his estate.

The University of Chicago, other schools of medicine and a number of hospitals and research institutions also were generously remembered.

History has recorded Dr. Abbott as a dynamic pioneer in medicine, respected even by those who could not agree with him. His spirit and philosophies are perpetuated in the company which bears his name and carries the slogan "Changing Ideas, Changeless Ideals."

NEXT MONTH

The story of Gideon D. Searle whose experiences in the Civil War aroused his interest in medicine and pharmacy.

Clinico–Pathological Conference

University of Kansas Medical Center

CASE PRESENTATION. we are discussing today a 56-year-old white man who had worked in oil fields and on pipe lines, and had been a farmer since 1946. He was admitted to this hospital for the first time on August 1, 1956, and at that time his complaints were transient chest pain, cough, and weakness of two weeks' duration.

Two weeks before admission he had an acute upper respiratory infection with headache, nasal stuffiness, cough, and a transient pain in the left chest. These symptoms seemed to be aggravated by dust from plowing. He had a cough, productive of foamy white sputum, which was most pronounced in the morning, but had no hemoptysis or night sweats and only slight anorexia. He had recently been somewhat hoarse and lethargic.

At 25 years of age he had had pneumonia and malaria. In 1949 a renal stone had been removed from the left kidney which was said to be "puffed up" at that time. In 1953 he had had fre-

Conference Participants

Edited by Jesse D. Rising, M.D. and Mahlon Delp, M.D. from recordings of the conference participated in by the departments of medicine, pediatrics, surgery, radiology and pathology of the University of Kansas Medical Center, as well as by the third and fourth year classes of medical students.

quent episodes of vomiting and was told that he had "obstruction at the bottom of the stomach." He was treated with "a white liquid and small brown tablets" which seemed to give him some relief.

He smoked one package of cigarettes daily and occasionally drank alcoholic beverages in moderate amounts. He had a history of sinusitis and frontal headache for twenty years. He had had nocturia (one time) and dysuria for two weeks before admission, and he gave a history of passing "gravel" several years ago.

He had had a venereal disease which had been treated with heavy metals and "cured" about thirty years before admission, and he gave a history of gonorrhea about forty years before admission.

His usual weight was 160 pounds; his weight on admission was 147 pounds. He did not know when he lost the weight.

One sister died of tuberculosis at 17 years of age. The family history was otherwise non-contributory.

Nodes

The patient was a well developed white man having the appearance of recent weight loss. His blood pressure was 108/70; pulse rate 84 and regular; respiratory rate, 20. He was edentulous. There were bilateral supraclavicular nodes.

A pleural friction rub was palpable and audible over the anterior lower left chest and scattered wheezes were heard at both bases. The heart was normal with occasional ventricular premature contractions. The liver, kidneys and spleen were not palpable. There was deep epigastric and right costo-vertebral angle tenderness. There was a lower left quadrant scar. The genitalia were normal; the prostate was soft and somewhat enlarged.

The neurological examination was negative.

Laboratory

The specific gravity of the urine was 1.011 with a heavy trace of albumin but no sugar. It was loaded with clumps of white blood cells and bacteria, and gave a plus reaction for occult blood.

The red count was 4,210,000 with 12.6 gm of hemoglobin; and the white count was 11,000 with 78% polymorphonuclears, 19% lymphocytes, 1% eosinophils and 2% monocytes. The VDRL was non-reactive.

The blood urea nitrogen was 10.3 mg %; fasting blood sugar, 73 mg %; and carbon dioxide, 27 mEq/L. Phenolsulfonphthalein

was excreted at the rate of 18.5% in 15 minutes and 25% in one hour.

No stones were found in three urine examinations, but the test for blood was positive and the specimens were loaded with bacteria and white blood cells. Aerobacter aerogenes and "paracolon" bacilli were found in two urine cultures. The tuberculin and histoplasmin skin tests were positive. Three sputum cultures and smears for Mycobacterium tuberculosis were negative. The sedimentation rate was 24 mm in one hour. Cytologic study of the sputum showed one class V cell, and the specimen was judged to be class IV.

Biopsies of the supraclavicular lymph nodes were made on August 6, 1956, and a cystoscopy was done on August 8. The patient's treatment consisted of an alkylating agent, and he was dismissed on August 11, 1956.

Second admission

He was admitted the second time on September 24, 1956, complaining of weakness, anorexia and abdominal pain. His symptoms had increased for two weeks preceding his admission. He had definite dyspnea on exertion and a frequent cough. There had been no weight loss.

There were hard, swollen, nontender lymph nodes on both sides of the neck. Rales were heard in the base of the left chest. The examination was otherwise negative.

The specific gravity of the urine was 1.015 with a trace of albumin but no sugar. It was loaded with white blood cells and bacteria. The hemoglobin was 12.8 gm and the white count was 8,300 with a normal differential count. The platelet count was 192,000. The alkaline phosphatase was 1.8 millimol units.

He was given six x-ray treatments, and his oral medications were readjusted. He was dismissed on October 4, 1956.

Cough

His third admission was on October 25, 1956, when he complained of continuing epigastric discomfort, severe anorexia, some nausea without vomiting, a frequent cough productive of clear white sputum and a weight loss of 11 pounds.

The patient appeared to be jaundiced. His blood pressure was 110/80; pulse rate, 80 and regular; respiratory rate, 14. There were firm, irregular, nontender nodes in both supraclavicular areas. Expiratory wheezes were heard over both sides of the chest and there were faint crepi-

tant rales in the left lower lung. The abdomen was moderately tender especially in the right upper quadrant. No organs or masses were palpable.

The specific gravity of the urine was 1.014 with a heavy trace of albumin but no sugar. The urine was positive for bile and was loaded with bacteria. There were 40 to 50 white blood cells per high power field and numerous pus clumps. The red count was 4,390,000 with 13.7 gm hemoglobin. The white count was 7,200 with 85% polymorphonuclears, 11% lymphocytes, 4% monocytes. The platelet count was 193,000.

The blood urea nitrogen was 14.3 mg %; carbon dioxide, 26.1 mEq/L; sodium, 138 mEq; potassium, 4.5 mEq; chlorides, 103 mEq. The direct serum bilirubin was 2.2 mg %; total, 3.6. mg %.

Alkaline phosphatase was 5.2 millimol units; cholesterol, 238 mg % with 65% esters.

A serum transaminase on October 29 was 50 GOT units. The prothrombin time was 55% of normal. The thymbol turbidity was 6.

On November 2 the urinary urobilinogen was 10.1 mg total volume.

On November 3 the serum transaminase was 73 GOT units.

Repeat liver function studies on November 12 showed alkaline phosphatase, 25.8 millimol units; direct serum bilirubin, 9.9 mg %; total bilirubin, 18 mg %; cephalin cholesterol, 2 mg %; thymol turbidity, 11 units; serum albumin, 3.54 gm %; serum globulin, 1.56 gm %; and cholesterol, 216 mg % with 48% esters.

Abdominal pain

He was given intravenous fluids frequently during his hospital stay, and he received 500 ml of whole blood on November 14 and 15. Because of his severe abdominal pain he had an epidural block on November 1 and a liver biopsy was done on November 4.

From November 5 to November 8 he had severe abdominal discomfort, abdominal distention and periodic episodes of weakness with tachycardia and a decrease in his blood pressure.

He developed hematemesis on November 12. The hemoglobin dropped from 11.5 to 9.7 gm %, and on November 19 the red count was 3,590,000 with 10.6 gm hemoglobin. The white count was 2,450 with 77% polymorphonuclears, 15% non-filamented, 15% lymphocytes, and 8% monocytes. The platelet count was 80,000. The hemoglobin on November 24 was 7.5 gm. On November 23 the car-

bon dioxide was 29 mEq/L; sodium, 136 mEq; potassium, 4.5 mEq; and chlorides, 105 mEq. He became lethargic and developed a fever of 102 degrees on November 20. The blood pressure was 96/86.

He had an altered state of consciousness for the next three days, and numerous rhonchi developed bilaterally in his chest. On November 24 he became comatose, responding only to painful stimuli but without specific neurological findings. Respiration was deep and labored. He died quietly at 3.57 A.M.

Questions

Dr. Mahlon Delp (moderator): Are there any questions for Dr. McKee?

Larry Ball (fourth year medical student): Were serum calcium and phosphorus determinations made?

Dr. Delp: No, they were not.

Eugene Almer (fourth year medical student): What about serum amylase and lipase?

Dr. Wallace P. McKee (resident in medicine): None were reported.

Luis Bianchini (fourth year medical student): Did the pain radiate to the back?

Dr. McKee: There was some mention of pain through to the back just before the patient had the epidural block.

Mr. Bianchini: Did he obtain relief by assuming any particular position?

Dr. McKee: I do not know.

Stevens Acker (fourth year medical student): When was the epidural block done?

Dr. McKee: There were two epidural blocks, the first on October 31 and the second on November 3.

Mr. Bianchini: Where was the x-ray beam directed?

Dr. Delp: It was directed to the supraclavicular area.

Mr. Ball: Was there a gastric analysis?

Dr. McKee: No.

Biopsy

Loren Aker (fourth year medical student): What was the report of the liver biopsy?

Dr. Delp: It showed bile plugs.

John Benage (fourth year medical student): Were any fasting blood sugars done during his last admission?

Dr. McKee: None were recorded.

Mr. Acker: Did he receive chlorpromazine?

Dr. Delp: Yes.

Mr. Almer: Was he given cortisone?

Dr. Delp: He was given corticotropin and prednisolone.

Mr. Benage: When and for how long?

Dr. Delp: Since his hospitalization in September, 1956.

Mr. Almer: Was he given a broad spectrum antibiotic during his last admission?

Dr. Delp: No.

Mr. Ball: Were red blood cells ever detected in the urine?

Dr. Delp: None were recorded.

Mr. Acker: What was the lowest platelet count?

Dr. Delp: The lowest count was 80,000.

Mr. Almer: Did he show any apathetic features or psychoneurotic trends?

Dr. McKee: He was lethargic during his last admission, but I do not believe he had any mood changes.

Mr. Benage: How long was he on the alkylating agent?

Dr. Delp: It was administered in the hospital during the first and second admissions.

Mr. Benage: Was it used during the third admission?

Dr. Delp: No.

Mr. Bianchini: What oral medication was readjusted on his second admission?

Dr. Delp: Corticotropin and chlorpromazine.

Mr. Acker: Were there any other transaminase levels?

Dr. Delp: No.

Mr. Aker: What did the nose and throat cultures reveal?

Dr. Delp: They showed the usual flora.

Mr. Almer: Had the patient ever had herpes zoster?

Dr. Delp: No.

Mr. Androes: Were there any blood ammonia determinations?

Dr. Delp: No.

Blood pressure

Mr. Acker: What was the blood pressure terminally?

Dr. Delp: The blood pressure became rather low, 80/0.

Mr. Bianchini: Did he ever complain of pruritis?

Dr. Delp: No.

Mr. Acker: What was his temperature course?

Dr. Delp: He had fever several times, but his temperature was usually normal.

Mr. Ball: Were there any peripheral vein thromboses?

Dr. Delp: None were noted.

Mr. Acker: What was his fluid intake and output?

Dr. Delp: It was adequate.

Mr. Almer: Did he have constipation or diarrhea?

Dr. Delp: No.

Dr. Robert Brown (medical resident): Was a Coomb's test done?

Dr. Delp: No.

Dr. Brown: Was there any nasal discharge or symptoms relative to the paranasal sinuses after he was hospitalized?

Dr. Delp: There was none other than that recorded.

Dr. Brown: Was it established that he had steatorrhea?

Dr. Delp: He had none. Mr. Aker, may we have the electrocardiograms, please?

Cardiograms

Mr. Aker: The first electrocardiogram on August 2 shows a normal sinus rhythm *(Figure 1)*. There are ventricular premature contractions in leads I, V_5 and V_6 and a rate of 75. The P waves are somewhat larger than normal. The P-R interval is approximately 0.16 seconds, the QRS duration is approximately 0.06 seconds, and the QT interval is normal. The QRS and T vectors are normal, and the chest leads have normal progression of the R and S waves. I interpret this tracing as essentially normal except for the ventricular premature contractions.

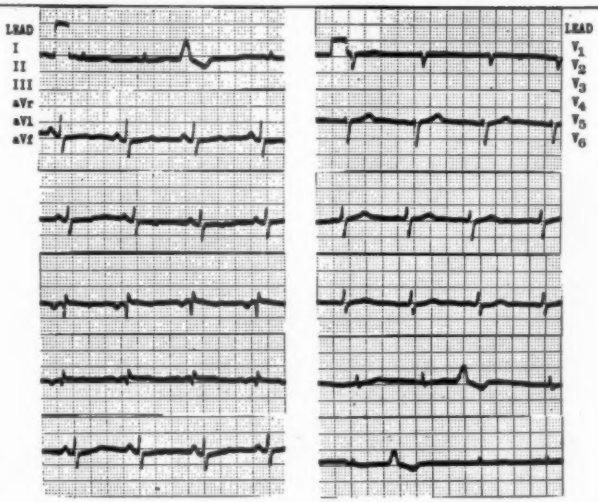
Dr. Delp: Dr. Lin, do you have any comments?

Dr. T. K. Lin (cardiologist): The P waves are slightly peaked in leads II, III and Avf. There is rather low amplitude in the complexes in the precordial leads.

Dr. Delp: Thank you. We will now have the x-rays, please.

Mr. Acker: The first chest x-ray

Figure 1. Electrocardiogram taken on first admission.



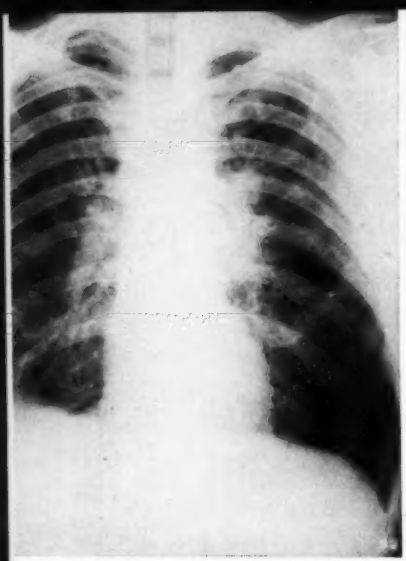
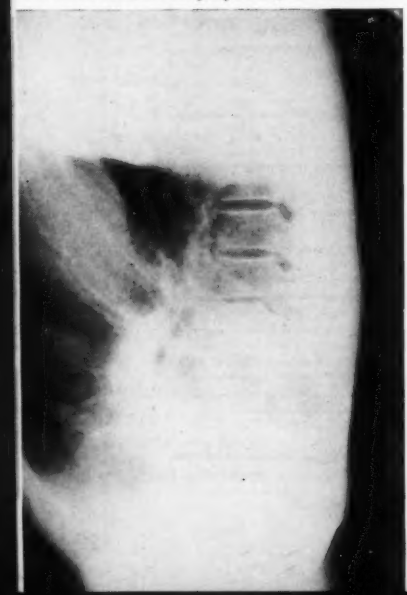


Figure 2. Chest film, first admission.

re 3. Chest film, lateral projection, first admission.



was taken on August 2, 1956 *(Figure 2)*. The trachea is in the midline. I see no bony abnormalities. The costophrenic angles are blunted, there is fluid in the right base and increased haziness in the hilar region. There is a possible increase in the bronchovascular markings. The heart is of normal size. The lateral projection *(Figure 3)* shows some haziness and fluid posteriorly.

The intravenous pyelograms made on the first admission give good visualization of both calices with some hydronephrosis on the left. The psoas muscle shadows are normal. I cannot see any bony abnormalities.

A gastrointestinal series was done during the first admission and shows hypertrophy of the gastric rugal folds. There is a questionable defect in the distal one-third of the stomach. The duodenal loop may be slightly enlarged.

The films taken during the last admission show few changes. A Ghon complex is seen, and there is some fluid in the right base. In the spot films there is a suggestion of a lesion in the distal part of the stomach.

Dr. Delp: Dr. Tice, have you any comments?

Dr. Galen Tice (radiologist): I could not demonstrate an ulcer

crater, but I thought there was increased peristalsis. I could find no evidence of esophageal varices. In the chest films the heavy hilar shadow may be the site of a neoplasm. In the film taken in October the left hilum was still enlarged but not as much as it had been, so we concluded that it was an inflammatory process. At the time we saw him in August we were quite concerned about the possibility of a neoplasm.

Weight loss

Dr. Delp: Thank you, Dr. Tice. To summarize: this 56-year-old man entered our hospital complaining of cough and chest pain which he said was of two weeks' duration, and which was aggravated by dust while he was plowing. There are reasons to think that he might have been losing weight for a longer period than two weeks. He had lost about 15 pounds by the time he got here.

There were two important findings on physical examination, a pleural friction rub over the left chest and enlarged supraclavicular lymph nodes. We know these lymph nodes were biopsied, and that following this he received an alkylating agent. On our patient's third admission he complained of abdominal pain, and he was jaundiced.

Bladder tenesmus

Diagnostic procedures were carried out, including a punch biopsy of the liver. During that hospitalization his abdominal pain became worse following the punch biopsy. He had diffuse pain in the abdomen, in the right side and right shoulder, and he developed severe bladder tenesmus which made it necessary to catheterize him four times during one evening.

He was receiving corticotropin in rather large doses and prednisolone in doses up to 80 mg a day. These were gradually discontinued. He also received chlorpromazine throughout his last 30 days of life. He vomited blood for a day or two before death and died vomiting and in coma. It is our purpose here to attempt to explain some points of interest in this case, not just the primary diagnosis and final cause of death.

Mr. Bianchini, will you please begin?

DIFFERENTIAL DIAGNOSIS. *Mr. Bianchini:* Our patient had a diversity of signs and symptoms. The first ones I wish to consider are the inflammatory reactions that might account for the short course of his illness and his death. The first entity I will consider is tuberculosis because he had a history of contact with that disease.

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No organism was cultured, however, and radiologic findings were not compatible with that diagnosis. Histoplasmosis might possibly cause these symptoms, but again we have slight evidence in favor of that diagnosis.

Sarcoidosis may sometimes run a course similar to this, but the blood globulins were not elevated, and the serum calcium was not done. Fungal organisms could produce these symptoms, but again I have no good evidence.

Neoplasm

There was a cytologic diagnosis of class V cells in the sputum, and I must consider neoplasm. The first one I will consider is neoplasm in the lung. Both primary and secondary carcinoma of the lung cause cough and pleuritic pain. I shall rule out primary carcinoma of the lung because our patient had metastases which caused extrahepatic obstruction of the liver, and carcinoma of the lung would probably metastasize to the liver through the hematogenous route. There are no conclusive radiological findings, however.

Carcinoma of the prostate should be considered because of the age of our patient. I rule it out, however, because there were no physical findings. Carcinoma of the colon does metastasize to the liver, but there is no radiological evidence of pathology in the bowel.

Carcinoma of the stomach is also a possible diagnosis. There is no x-ray evidence for this disease, but a neoplasm arising from the wall of the stomach, a lymphosarcoma, for example, or a lyomyosarcoma, could reproduce this picture without showing many x-ray changes. I can not completely rule these out, but will disregard them for lack of radiological evidence.

Lymphomas

The lymphomas manifest themselves by generalized lymph node involvement, and could present these symptoms. There was mediastinal and supraclavicular lymph node enlargement characteristic of lymphomas or Hodgkin's disease. Our patient at no time had pruritis, his globulins were not elevated, and he did not respond to x-ray or alkylating treatment. Because of this I reluctantly rule out the lymphomas.

Rare entity

I shall next consider neoplasm of the kidney. This patient had blood in the urine and this makes me think of a hypernephroma which could metastasize widely.

producing atypical pictures. Usually a mass is palpable, but there was none in our patient. Another possibility is squamous cell carcinoma of the renal pelvis which is an attractive diagnosis. It is a rare entity and often associated with renal calculi, and I rule this out because of its rarity and because the patient had a normal intravenous pyelogram.

My next consideration is carcinoma of the pancreas in which the most common chief complaint is epigastric discomfort which may take a variety of forms. The pain is usually severe, radiating to either flank or to the back. Patients with carcinoma of the pancreas usually first have pain, then weight loss, and finally jaundice. Our patient had all of these. Carcinoma of the pancreas metastasizes early, runs a rapid course, and is characterized by lack of anemia. Our patient had a neoplasm, but the anemia was never marked until his final episode. Two percent of these carcinomas will have bilateral metastases to cervical lymph nodes.

My final diagnosis is carcinoma of the pancreas which terminally metastasized by direct extension and lymph node involvement into the porta hepatis producing obstructive jaundice. I believe he had chronic pyelonephritis which accounted for his urinary findings and hematuria.

Terminally he became jaundiced, his alkaline phosphatase and serum bilirubin were elevated which is typical of obstructive jaundice. He had a punch biopsy with complications, and, finally, there was bleeding into the gastrointestinal tract. Because of the action of the alkylating agents and a prolonged prothrombin time I believe that this is significant cause for his death. The bleeding into the gastrointestinal tract was due to low prothrombin activity and thrombocytopenia.

CLINICAL DISCUSSION. *Dr. Delp:* Thank you. What is your diagnosis, Mr. Benage?

Mr. Benage: Carcinoma of the body and tail of the pancreas.

Dr. Delp: Mr. Androes?

Mr. Androes: Carcinoma of the pancreas.

Dr. Delp: Mr. Almer?

Mr. Almer: Carcinoma of the head of the pancreas.

Dr. Delp: Mr. Ball?

Mr. Ball: Carcinoma of the body and tail of the pancreas.

Mr. Aker: Carcinoma of the body and tail of the pancreas and of the stomach.

Dr. Delp: Mr. Acker?

Mr. Acker: Carcinoma of the stomach.

Dr. Delp: Mr. Benage, what would account for the rapid worsening of his condition during the last few days of his life?

Mr. Benage: He had jaundice, and an increase of the prothrombin time is characteristic of obstructive type jaundice. There is often massive hemorrhage into the gastrointestinal tract. In addition to that he had been on alkylating agents which depresses the bone marrow.

Dr. Delp: What was the cause of his severe discomfort in the lower abdomen and the bladder tenesmus?

Mr. Androes: He probably had severe infection of the intestines and peritonitis.

Mr. Ball: I believe this may have been the result of bile peritonitis secondary to liver biopsy.

Dr. Delp: Mr. Bianchini, what is your impression of that?

Mr. Bianchini: Our patient had a long history of obstructive uropathy, and when there is superimposed both infection and obstruction, acute urinary retention and bladder spasm frequently develop.

Dr. Delp: Do you think that this was primarily a genito-urinary tract disorder?

Mr. Bianchini: Yes.

Dr. Delp: Dr. Weber, do you have any comments?

Carcinoma

Dr. Robert Weber (internist): My first diagnosis of a 56-year-old man who smoked cigarettes excessively and entered the hospital with pain in the chest, a pleural friction rub and pleural effusion would be carcinoma of the lung.

The jaundice in this patient was interesting, and I would like to suggest two other causes, the first being serum hepatitis. This should be considered in any patient who has received numerous medications while hospitalized. The alkaline phosphatase of 25 would be against that diagnosis, however.

Another possibility is the use of alkylating agents in a patient with a liver of borderline function as a result of previous cirrhosis of the liver.

I believe that he either had extrahepatic obstruction from a carcinoma of the pancreas or from nodes.

Dr. Delp: Do you have any comment, Dr. Berry?

Dr. Maxwell G. Berry (internist): There were two things against carcinoma of the pancreas, but they probably do not rule them out because of the unanimous opinion of the students.

One is that the patient apparently did not have severe enough

abdominal pain for carcinoma of the pancreas, or at least it did not appear on the protocol that he did.

The second point is that there were too many lymph nodes over the clavicles on both sides. We see this only occasionally. If two uncommon factors are present, one should consider it as rare. I thought originally that the patient probably had a lymphoma.

Shadow change

Dr. Charles E. Andrews (internist): I believe this patient probably had cancer of the lung. During the past year, however, I have had two patients with cancer of the pancreas who presented primarily with pulmonary infiltrates and supraclavicular lymph nodes. It is of great interest that there was a change in the left hilar shadow, and I wonder whether there was any relationship between that and the x-ray treatments that he received. A small cell anaplastic carcinoma of the lung could well have responded in this way.

My primary diagnosis would be anaplastic carcinoma of the lung. I would also like to offer another possible explanation for his terminal event: a reactivated ulcer due to large doses of steroids and death from a bleeding peptic ulcer.

Dr. Delp: If there are no other comments may we have the pathology report, please?

PATHOLOGICAL REPORT. *Dr. Bernard Klionsky* (pathologist). A small squamous cell carcinoma originated in the main bronchus of the upper lobe of the left lung. The presence of the tumor had been suggested by the presence of malignant cells reported on the cytologic examination of the sputum four months before death.

Distant metastases were proved at that time by biopsy of the supraclavicular nodes.

Metastases to the frontal lobes and caudate nucleus of the brain were associated with considerable edema and may have been responsible for coma.

Metastases were also present in the adrenal gland and the kidneys. No stones were found in the urinary tract. No tumor was found in the bone or liver.

Obstruction

Jaundice is explained by extensive metastases to the pancreas and peripancreatic nodes with obstruction of the common duct, the pancreatic duct, and the portal vein with thrombosis. Distal to the site of obstruction within the pancreas, the common bile duct was of normal caliber and was not bile stained. The common duct, the gallbladder, and the intrahepatic

bile ducts were markedly distended proximal to the obstructing tumor mass. The liver was intensely jaundiced. The needle liver biopsy 22 days before death revealed normal hepatic architecture and evident bile stasis. At that time differentiation of intrahepatic from extrahepatic obstruction was impossible. At autopsy, however, the liver showed the effect of progression of the obvious extrahepatic obstruction with many bile plugs in canaliculi and in portal bile ducts. No true cirrhosis had developed.

A variety of pathologic lesions were present in the lung. A recanalized thrombus was found near an old small infarct. An unusual organizing bronchitis and bronchiolitis was characterized by mucosal ulceration with subsequent intraluminal extension of inflamed granulation tissue resulting in bronchial obstruction. A moderate degree of pulmonary fibrosis and emphysema was noted.

Biopsy complications

A most dramatic finding was the presence of multiple bile emboli in pulmonary capillaries and arterioles throughout all lobes of the lung *(Figure 4)*. The only conceivable source for such emboli is a communication between a bile duct and a hepatic vein.

Careful examination of the liver revealed a distended bile stained traumatic fistula, along the course of the biopsy needle, connecting major intrahepatic bile ducts with large branches of the portal and hepatic veins *(Figures 5 and 6)*. The symptoms of bladder tenesmus and peritonitis which began after the liver biopsy are explained by a bile peritonitis localized in the cul de sac and over the urinary bladder.

Both the bile peritonitis[2] and the pulmonary bile emboli[1] must be regarded as complications of the needle liver biopsy.[3, 4, 5] The former is not uncommon; only a single instance of the latter has been reported. The pathogenesis is apparent. Normal intrahepatic biliary pressure does not exceed 50 to 70 mm of water, beyond which the normal gallbladder will expand or the system will discharge, thereby preventing a rise in pressure within the liver. In the presence of obstructive jaundice, the pressure can rise to 200 to 300 mm of water, as in this instance. The pressure was adequate to permit immediate bile leakage from the biopsy site and to convert the needle tract into a traumatic fistula allowing embolization of bile to the lungs through hepatic veins.

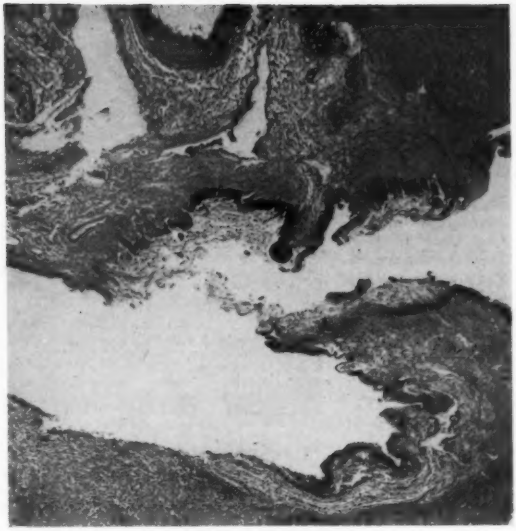

Figure 4. Photomicrograph of bile emboli in pulmonary arteriole. Yellow bile embolus has an amorphous and gray appearance. Hematoxylin and eosin. X300.

Figure 5. Gross photograph of right lobe of the liver. The needle tract terminates in a dilated major intrahepatic bile duct.

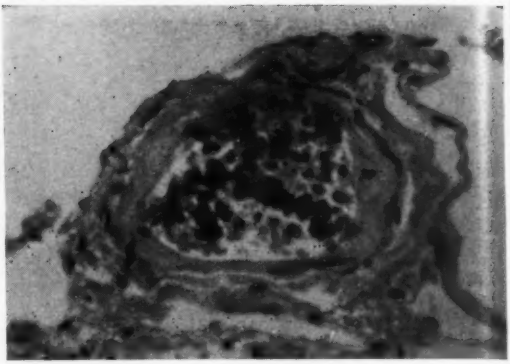

Figure 6. Photomicrograph of fistula tract in liver. The bile stained fistula communicates with bile duct and hepatic vein. Hematoxylin and eosin. X16.

Disease spread

Dr. Delp: There are two other questions I want to ask Dr. Wilson and Dr. Tice and anyone else who wishes to comment. It seems to me that this patient's condition deteriorated perhaps more rapidly than it should have. In such a situation as this, with already widespread carcinoma, do radiation therapy or steroids in pharmacological doses have anything to do with speeding the spread of the disease?

Dr. Sloan Wilson (hematologist): I do not think it would hasten the spread of the disease, but so far as the normal physiology of the body is concerned it certainly would modify tissue reactions.

Dr. Tice: The first x-ray therapy in September was directed at the supraclavicular nodes, which gradually decreased in size according to my records. Before he died he received more x-ray treatments over his abdomen. I am sure it did not do him any good, and it is possible that x-rays over the abdomen might increase the vascularity and might tend to speed up the development of the disease.

Dr. Delp: Are there any other comments?

Dr. Klionsky: This tumor was unusual in distribution because it did not involve the liver or bone. We did have evidence of adverse effects of the nitrogen mustard therapy on the bone marrow which showed marked arrest, particularly of megakariocytes and the neutrophilic series.

Dr. Max Allen (internist): Was

the source of bleeding determined?

Dr. Klionsky: Yes, he had multiple ulcers in the stomach, many of them were tumor.

Dr. Weber: I would like to make a comment about the liver biopsy. A prothrombin time of 55% would not in itself be a contraindication to liver biopsy.

Dr. Delp: I would not want you to take too seriously my implications that perhaps steroid therapy and irradiation therapy might have increased the spread of this disease. That was not an original idea, but has been suggested by others in the last two or three years. I chose this patient for a very specific reason: because he did have a complication of a punch biopsy, and it did have such unusual features. Bile peritonitis is not particularly unusual, but bile embolization to the lung is.

PATHOLOGICAL ANATOMICAL DIAGNOSIS: PRIMARY — Squamous cell carcinoma of the bronchus of the upper lobe of the left lung with metastases to hilar, supraclavicular, and abdominal lymph nodes; to the stomach (with ulceration); to the pancreas (with extension to and obstruction of the portal vein, the common bile duct, and the pancreatic duct); and to the kidneys, adrenals, and brain.

Thrombosis of the portal vein.

Dilatation of the biliary system above the pancreas.

Chronic ulcerative cholecystitis, advanced.

Traumatic fistula in the liver.

Bile peritonitis.

Bile emboli to the lungs.

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Vernon E. Wilson, M.D.

Guest Editorial

THE PRACTICE OF MEDICINE: To Integrate or Not to Integrate

In a day when "integration" is a word so much used that it has almost lost its meaning, an editorial with such a title may be a foolhardy undertaking. Be that as it may, the great discrepancy between what doctors say about the ideals of medicine and what they do in the practice of medicine serves as an adequate stimulus for another attempted clarification of our situation.

Integration, whether of races, creeds or academic programs must first take place in the minds of the affected individuals. This must be more than an intellectual or verbal acceptance, it must be an emotional acceptance born of desire; to put it another way the interested person must "believe" or "have faith" that the principle is sound.

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a whole" and to increase the co-operation between departments; integration of two kinds.

VERNON E. WILSON
M.D.
Associate Dean
University of Kansas
School of Medicine

In the midst of all this noisy clamoring for integration, stimulated in part no doubt by puritanical consciences, some blatant contradictions between action and words are readily apparent. The jealous striving between specialties for "jurisdictional" rights over a treasured part of the patient's anatomy, the accepted and carefully perpetuated line drawn between so-called clinical versus basic science disciplines, the completely artificial differential between academic medicine versus the practice of medicine, and the sancitity of the scalpel, which can only be raised by he who has joined the anointed few (no matter how long past the ceremony), are but a few of the many instances in which individuals or groups approach their problems with a monocular type of vision.

Is there any satisfactory approach to such a problem? The answer is an emphatic "yes!" The answer lies in an active redefinition of the goals of the practice of medicine on the part of the schools, the practicing physicians, and perhaps even the lay public. Granted that this approach is idealistic, idealism is actually the essence of its value. Perhaps a slight review of the means by which we have arrived at present standards is justified.

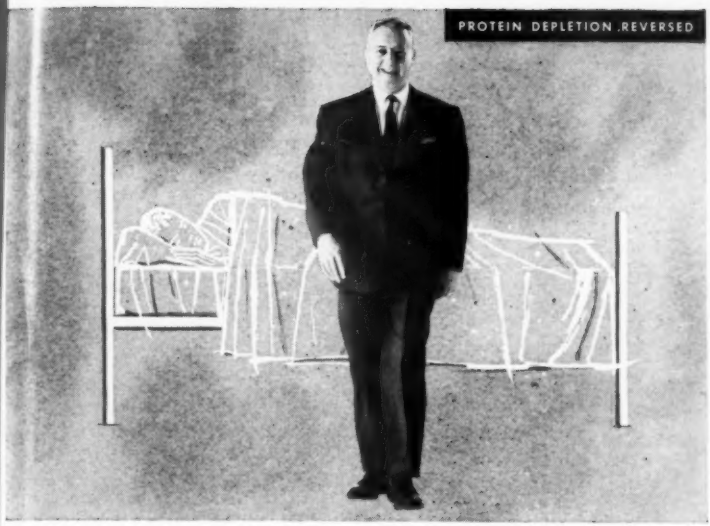
Because a large part of the practice of medicine is empirical and requires certain skills, the great battle in the past has been to avoid making of it a trade. From the time of Hippocrates who taught the entire

field of medicine in a nursing home attached to his own house, through the thirteenth century when medicine was taught in the University of Paris to college graduates by rote memory in droning Latin and amid the complete absence of patients, on down to the almost complete dependence upon preceptorial training in the colonies, this battle has raged back and forth.

The renaissance of university medicine in the United States at the turn of this century needs no review or defense. However the rapid strides which then took place in the acquisition of information soon developed new problems for the practice of medicine. To be an expert, one must specialize; each specialty be it basic, science, clinical, academic, practice or other, seems to view itself as the particular hub around which the medical universe must revolve. The patient is of course equally sure that it revolves about his pain (not his diagnosis). What then are the objectives of medicine?

First and most important the practitioners are an integral part of the community. Their existence as a profession is dependent upon the acceptance of their role by the lay public. No matter how excellent his practices, the physician as such will disappear as a social entity unless his concept of medicine is understood and accepted by his social group. While no defense of this point is indicated, one need only watch the medical profession to see how often it is forgotten; the practice of medicine too often is taken to be the property of the doctor to be dispensed only on his terms.

Second, the excellence of practice, from the standpoint of the consumer, is not determined by the amount of information or skill any one individual possesses but rather by how successfully the practi-



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tioner can relieve the patient of his symptomatology either directly or indirectly. In other words, personal interest and judgment or knowledge of one's own limitations are far more desirable qualifications than sheer knowledge or skill itself; this assumption taking for granted the fact that no one is licensed to practice without certain minimum amounts of information. Thus no matter how skilled the chest surgeon, there may be certain types of chest surgery, cardiac, pulmonary, vascular for which he needs additional help; for that patient it is not his skills but his judgment which is life-saving. This principle of course applies to the great debate as to who shall do surgery at all, or for that matter who shall conduct any therapeutic procedure. Until relicensure procedures are applied, and it is doubtful if physicians will be community-minded enough to accept such procedures in the foreseeable future, the board certification will remain a hollow stamp of approval on what *has been*, which in some regrettable instances bears little relationship to *what now exists*. This in no way denies the great contribution made by board certification as a guide post to the better care of patients, but serves as a protest to its becoming a goal or end result in itself.

Another distressing division is that which exists between academic medicine and the "practice" of medicine. There are evidences that we need to be reminded that whenever a patient receives medical care in or out of a medical school, this is "real" practice. Even more important however is the concept that the academic side of medicine is never completed. Good medical education can only give fundamental information, good judgment (hopefully), the tools with which to acquire information, a stimulation in that direction of attainment and the ability to pursue an education

in an independent manner. The only successful graduate is he who is the perpetual scholar receiving for the balance of his career points of direction and stimulation from the so-called academic institution. He must assume his own responsibility for a life long course of study without benefit of grades, class standings, written examinations, and other artificial goals. The educator in his teaching program must promote such ability in the student and, perforce, must view as a complete failure the graduate who closes his books with the acceptance of his degree and forthwith passively allows the detail man and "experience" to take over his medical education.

There can be no division between education and the practice of medicine if both are to progress. Education is the only source of practitioners; the practice of medicine is the sole reason for the existence of medical education.

It is therefore our first obligation, as practitioners of the healing arts, to find the way to unification of our various talents, without regard to pride or the financial rewards inherent in a given situation for oneself. If we are to be a profession rather than a trade and educated rather than trained, we must accept the responsible role which society offers and expects us to assume. We must be sensitive to the needs of the group, not allowing them to practice medicine for us but at the same time making sure that we meet their needs as they see them. Jurisdictional disputes, professional snobbery, and other purely selfish interests have no place in this, the oldest of professions.

Integration will result when common interests in and understanding of the needs of the patient become paramount in the minds of the doctors of medicine.

Given this example in the school and hospital, the

student, intern, and resident will have no difficulty understanding medical integration.

If this comes into being in the community, the social group will have no difficulty in identifying the medical practitioners as a group of educated professional public servants in whom they can have the greatest of confidence.

To accomplish such an ideal, each of us must believe it enough to put it into our thinking and our practice.

THIRTY CENTS AN HOUR

An editorial in THE NEW YORK TIMES, *May 23, 1958.*

At the shameful bottom of the totem pole among New York City's employes are the full-time interns and residents of our city hospitals. No teen-age baby sitter would deign to sit before the television set for what these people are getting to care for the sick. They know nothing of the minimum-wage law, or extra pay for overtime. They are on active duty from 105 hours a week to over 150 hours, including nights and week-ends.

For this devoted service, for which they have prepared by being graduated from four years of college and an expensive medical education, they receive these handsome salaries: Interns, $71 a month; assistant residents, $104 a month; residents, $157 a month. This figures out at less than 30 cents an hour to no more than 50 cents an hour, to which is added maintenance, the value of which is reduced if the young doctor has committed the folly of getting married and requiring separate domicile.

For this niggardly wage these doctors dispense the bulk of the daily medical care given to the patients of the municipal hospitals under a city administration that prides itself on labor relations enlightenment. To an appeal for relief from this Middle Ages apprenticeship system, to a citation of the infinitely better pay offered elsewhere, Mayor Wagner and the Board of Estimate turned a deaf ear in this year of the austerity budget. Here is certainly a "shame of the city" that should be recognized by prompt modification of the budget.

University of Kansas Medical Center

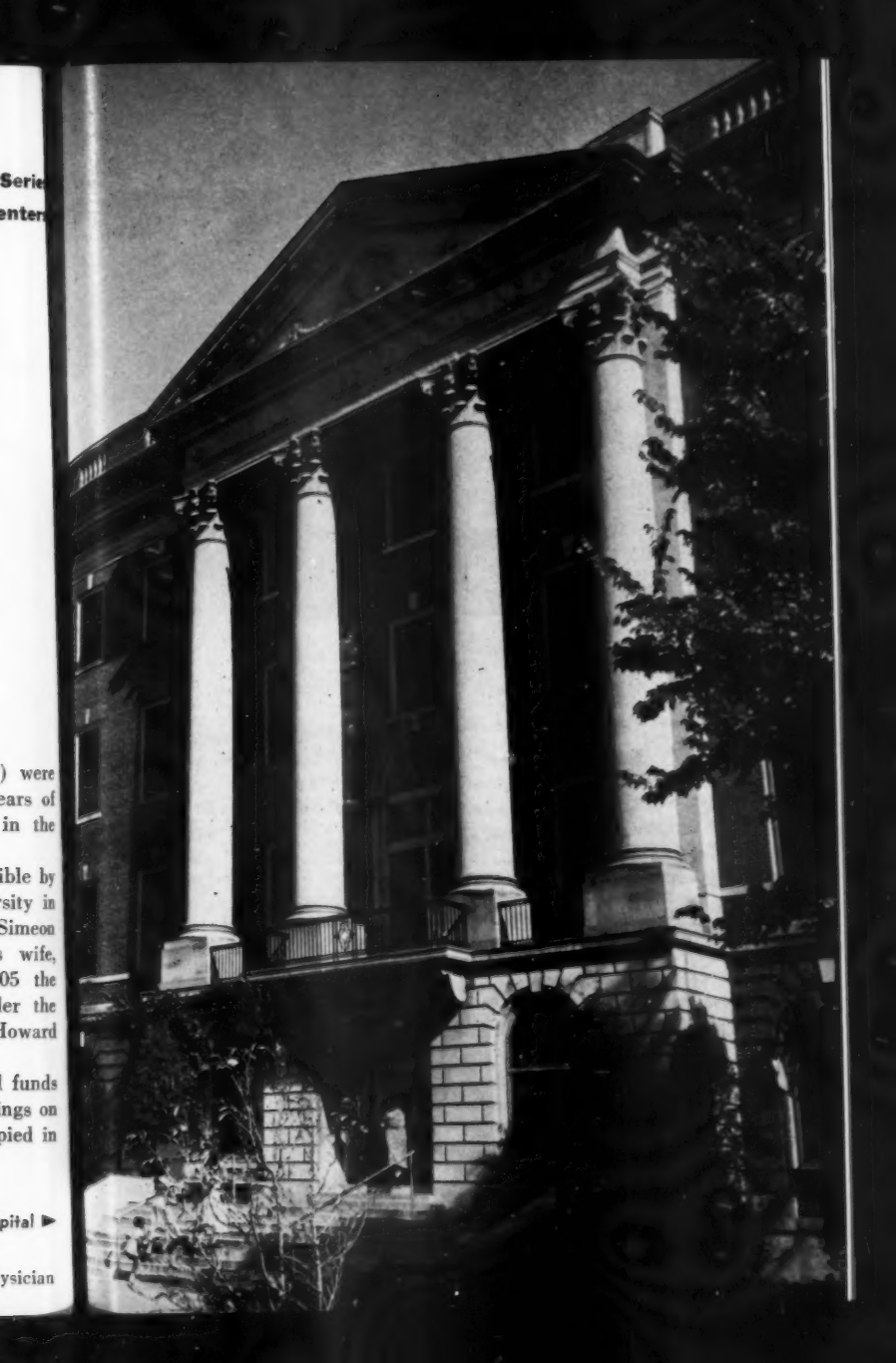
Through innovations in teaching patterns, methods and approach to medical education, one of the nation's busiest residency centers (116 residents and fellows) has emerged a leader in undergraduate and postgraduate education.

The University of Kansas was established by the Kansas legislature in 1862. Eighteen years later, a "preparatory medical course" was instituted under the direction of the University. Another quarter century passed before a four-year program was instituted. In the fall of 1905, and in harmony with the current trend in medical education, the Kansas Medical College (founded in 1869 in Kansas City, Missouri), the Medico Chirurgical College (founded in 1869 in Kansas City, Missouri), and the College of Physicians and Surgeons (founded in 1893 in Kansas City, Kansas) were merged into the final two years of a four-year medical course in the University of Kansas.

This union was made possible by a gift of land to the University in Kansas City, Kansas, by Dr. Simeon B. Bell in memory of his wife, Eleanor Taylor Bell. In 1905 the four-year school opened under the deanship of Dr. George Howard Hoxie.

Dr. Bell donated additional funds for the erection of new buildings on the site and these were occupied in 1907.

Administration Building, Bell Memorial Hospital ►



Unification

From its inception, a close relationship existed between the medical school and the state health services. This is indicated in an excerpt from a letter written (by Chancellor Strong) in 1910 to Kansas doctors and asking their advice:

"... we feel that it will be impossible to build a great medical school unless the school itself can have the advantage of close cooperation with the other great health agency, namely, the State Board of Health. Our desire, therefore, is to combine the work of the two, so far as is feasible, under one administrative head.

There is every indication that preventive medicine must be largely the field of endeavor of the future medical school. The present agency having most to do with preventive medicine is not in any way connected with the institution that has to do with the treatment of disease. The University will offer its laboratories, the most extensive in the Southwest, for the work that the State Board of Health may have to do. It has also been suggested that the Secretary of the State Board of Health, who has proved himself to be a most successful organizer and administrator, should unite in his person the two health agencies of the State and become the Dean of the School of Medicine. This unification would not do away with the State Board of Health or minimize its importance. It would necessarily have to be in such fashion as to leave the University and its School of Medicine entirely independent of politics."

1. Wahl Hall
2. Hixon Building
3. Power House
4. Outpatient Building
5. Eaton Building
6. "D" Building
7. "F" Building
8. Children's Hospital
9. "B" Building
10. Bell Memorial Hospital Building
11. Women's Residence
12. New Women's Residence
13. Continuation Center—Student Union Building
14. "G" Building

The suggested arrangement became a fact in the appointment of the nationally-known Dr. Samuel Crumbine (of "Swat the Fly" fame) as dean and Dr. Mervin T. Sudler, then professor of anatomy, as associate dean. In 1921 Dr. Harry R. Wahl became dean of the school. His dedication and planning carried the medical school through the difficult depression years with a steadily expanding program. He and his colleagues laid the firm foundations upon which has developed the recent period of rapid growth. In 1948 he reached the retirement age and was succeeded by Dr. F. D. Murphy.

In 1913 the Kansas Medical College of Topeka was merged with the School of Medicine. A dispensary building was added in 1916.

Through joint contributions from alumni and friends of the School of Medicine and appropriations by the city of Kansas City, Kansas, a larger and better situated site of fifteen acres was obtained in 1920. Upon this site and additional adjoining tracts has been developed the present medical center.

In 1921 the legislature appropriated funds for the first building, which was named Bell Memorial Hospital in honor of Dr. Bell's original contribution, and in 1927 the legislature appropriated money for two additional units, a nurses' home, and a ward building.

Additions

Since 1934, through the combination of state appropriations, private gifts, federal grants and hospital earnings, fourteen new buildings have been added to the University of Kansas Medical Center (this name was officially adopted in 1947.) Bell Memorial, the first building, is now primarily an administrative building.

Among the new buildings are included a Student Center Continuation Study building, containing hotel facilities, a 1000-seat auditorium, an air-conditioned library; a basic science building, entitled Wahl Hall, which houses research programs and the second-year faculty, and a new, air-conditioned psychiatric unit.

Under construction are a children's rehabilitation center and new offices for the department of postgraduate education. A radiology unit has been approved and will soon be under construction. Planning money has been received for another building to house additional research activities and the first year of the medical school.

Background

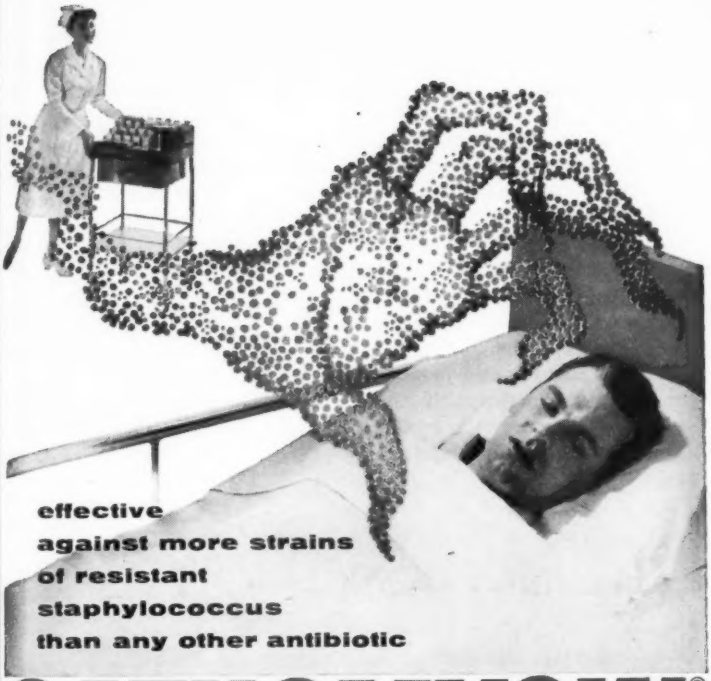
Medical education at Kansas has placed emphasis upon securing a well-informed, energetic and stimulating faculty. Such a procedure is adopted on the assumption that learning is actually a growth process accomplished only by the student and occurring more or less spontaneously (from the faculty's point of view) when proper stimulation and environment are provided.

Thus, in undergraduate education, new teaching patterns and devices are viewed as methods which can change faculty attitude and educational atmosphere, rather than a new way to "inject information" into the student.

Since formal undergraduate medical education cannot completely supply the necessary fund of information, emphasis is placed upon the acquisition of 1) judgment (knowledge of one's own abilities and limitations), 2) ability to independently assimilate and assess new information, and 3) a desire to work in harmony with one's colleagues for the collective advantage of the group as well as the individual.

To this end, competition for grades, class ranks, and other pseudo goals have been minimized while the requirement for competition with one's self has been heavily emphasized. This atmosphere pervades all levels of the program of medical education.

The medical school contains a department of nursing and a department of postgraduate education. In addition it assumes the responsibility for the training of ancillary personnel including x-ray technicians, medical technicians, dieticians, social service workers, occupational and physical therapists, speech correctionists and teachers of the deaf, as well as graduate students in the related disciplines.



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1. Pulaski, E. J., and Isokane, R. K.: Surg., Gynec. & Obst. 104:310, March 1957.
2. Petersdorf, R. G., Curtin, J. A., and Bennett, I. L.: Arch. Int. Med. 100:927, December 1957.

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Postgraduate education

All postgraduate education comes under the supervision of the medical school via the department of postgraduate education. This includes internships, in-residence training, residencies, refresher courses, clinical fellowships, and continuation study courses.

Responsibility for administration of the internship program lies chiefly in the hands of the house staff committee. Responsibility for administration of the residency, in-residence and fellowship programs is left primarily to the departments involved. Refresher courses and continuation study are supervised directly by the Associate Dean of Postgraduate Education, Dr. Mahlon Delp.

The postgraduate program for practicing physicians is the largest such program in the United States. For the year 1955-56 this totaled 2319 physician-enrolments. One out of nine physicians enroled in the United States were at the University of Kansas; a little over half of these physicians came from thirty-nine different states and six foreign countries. Nationally-known authorities appear as guest speakers to present new and stimulating approaches to current medical problems.

Rural Health Plan

In 1949 the Kansas legislature acting in concert with the Kansas physicians, the Kansas State Board of Health and the Kansas Farm Bureau implemented the now nationally known Rural Health Plan. Although the original appropriation was less than $4 million, the far-sighted concept of medical education and care continues to expand.

The basic tenets of the R. H. P. were simple but effective:

- The availability of health care must be measured in units of time, not in units of distance.
- The family physician is the only sound foundation upon which the rapidly expanding era of specialization can continue to build, and the lines of communication and highways of transport between these various types of medical care must be kept available and clear.
- Increased skill in patient care is not a natural by-product of more experience per se, but can be expected from studied and planned educational processes designed for practicing physicians and presented in such a way that the physician can participate regularly without serious interference with his practice; in essence, a vigorous "continuation study" or postgraduate study pro-

Following are listed the types of programs presented during 1956-57, all of which were available at no cost to the house staff and faculty of the Medical Center: obstetrics, internal medicine, pulmonary diseases, gastroenterology, surgery, radiology and radioactive isotopes, the heart—cardiac arrhythmias, neurology, symposium on pain, pediatrics, electrocardiography, hematology, ophthalmology and otolaryngology, anesthesiology, cardiac auscultation, symposium on leptospirosis, general practice, surgery-operative clinics, Kansas circuit course, radiological physics, histochemistry, and clinical use of radioactive isotopes.

Residencies

Following is a discussion of the resident-training program at the University of Kansas Medical Center. It is to be noted that block assignments of responsibilities have been made to the major departments for sections which contain related disciplines. This does not imply interference and each section is free to develop its teaching program within the broad limits to which all departments are responsible. Resident programs are non-pyramidal.

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gram sponsored by the medical school, with adequate consultation from the practicing profession and key health agencies.

- More physicians are needed in a rapidly expanding population.
- Each medical school must produce its own fair share of educators and, therefore, active research and specialty training programs must be developed.

Toward these goals the University of Kansas Medical Center has made rapid strides, using young leaders for its program. The initial impetus was given by Dr. Franklin D. Murphy as Dean from 1948 to 1951 and then as Chancellor of the University. Dr. Edward H. Hashinger then served one year as Acting Dean.

In 1952 the school was fortunate enough to secure the services of Dr. W. Clarke Wescoe, an outstanding pharmacologist and investigator, who continued the excellent work of his predecessor. Under his leadership, emphasis was put on academic personnel rather than facilities (although both have been added in rapid fashion) and today the school has a talented and productive faculty whose skills embrace the field of education, research and training for medical care.

Anesthesiology

Anesthesiology is a section of the department of surgery and is under the direction of Dr. Paul Lorhan. It is approved by the American Board of Anesthesiology for a two year program which may be divided into two phases, clinical and didactic.

The clinical assignments for the resident include a review of all cases pre- and post-operatively along with the responsibility for ordering appropriate medication and therapeutic procedures. These are then discussed with the attending staff. Insofar as possible, each resident employs all available and currently used anesthetic agents, techniques and supportive drugs.

One attending man is assigned to each two residents to insure personal and concentrated instruction for every case.

In addition the resident is responsible for the care of the patient in the recovery or post-anesthetic room as well as any other postoperative care related to the anesthetizing process.

Regional and therapeutic blocks as well as special techniques and procedures are included in the training program.

Each resident assumes the responsibility for approximately 750 patients a year, including general surgical procedures, thoracic cardiovascular, neurosurgical, obstetrical, and gynecological procedures.

Residents on rotation will spend a three-month period of each year at the affiliated Veterans Administration Hospital.

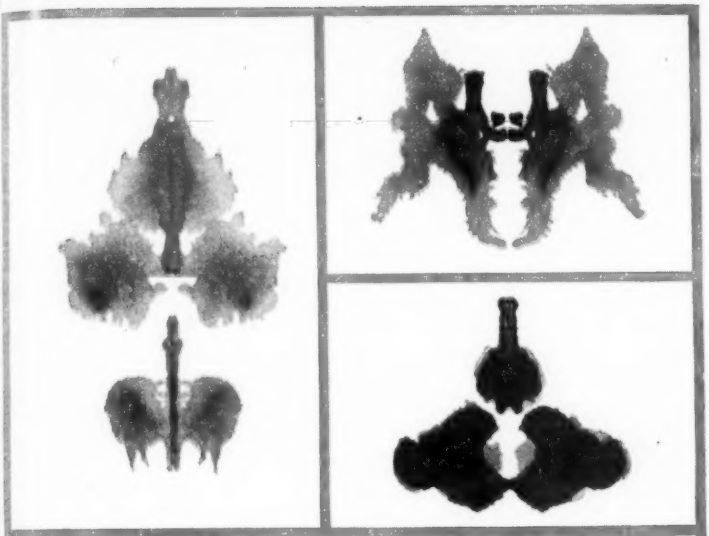
Didactic teaching is carried on concommitantly with the clinical program. Four hours each week are spent in formal instruction in anesthesiology, including the pharmacology and physiology of the discipline, the management of specific disease entities, a review of the current literature (each resident has assigned responsibilities) and case conferences. In addition, anatomical dissection is available for two hours each week during a ten-week program; particular emphasis is placed on the neuroanatomy of anesthesiology as related to various regional and therapeutic blocking procedures.

All residents in anesthesiology are required to investigate a specific clinical or laboratory problem. From these projects are selected papers to be presented at scientific meetings.

The instruction of medical students is a part of the training program for residents.

Internal medicine

The Department of Internal Medicine, of which Dr. E. Grey Dimond is chairman, has a three-year approved residency; one, two, or three years may be taken as desired. Concentrated experiences are available in the following general areas of endeavor: general medicine, cardi-



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J. Clin. & Exper. Psychopath. *18*:159 (June) 1957

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ology, hematology, metabolic diseases, pulmonary diseases, gastroenterology, investigative medicine, and also neurology (described in greater detail under that heading).

The training program is conducted at the Medical Center and at the Veterans Administration Hospital in Kansas City, Missouri. The staff of the latter is selected by the Dean's Committee at the Medical Center. All of the services, teaching experiences and assignments are combined in an integrated program.

In addition, elective services are available outside the Medical Center and include experiences at the Eli Lilly Laboratory in Indianapolis, in nuclear medicine at Oak Ridge, Tennessee, or in specialty sections at other medical centers by special arrangement.

The training in basic sciences and research is excellent because of the availability of a number of outstanding investigators who are members of the Department of Medicine. The resident may work on problems in cooperation with one of these men or, if he so desires and his problem is of sufficient merit, he may work on a problem of his own choosing in an independent manner.

Formal

Formal instruction is given by way of conferences on metabolic disease, hematology, medical physiology, cardiovascular problems, electrocardiography, diagnostic problems, medical pathology, clinical pathological conferences, and the history of medicine. Each resident spends time in the outpatient department and participates in activities in both general medical and specialty clinics. All residents are active in student and intern teaching programs.

Because the training program is non-pyramidal, responsibility as the chief resident is rotated. He is, in general, responsible for several of the conferences, departmental arrangements, and acts as advisor in the student and intern teaching program. He also attends the departmental staff meetings.

Third-year training may be taken as a fellow and in the event residents have an interest in taking their training in this manner they are requested to formulate their plans six months in advance of the planned fellowship and to discuss them with the departmental chairman.

Journal clubs, discussion groups, and the active postgraduate education program all serve as additional stimulants and sources for the acquisition of new information.

Neurological surgery

Neurological surgery, under the direction of Dr. William P. Williamson, is a section of the Department of Surgery at the University of Kansas Medical Center and is approved by the American Board of Neurological Surgery.

The resident training program is four years in length and applicants

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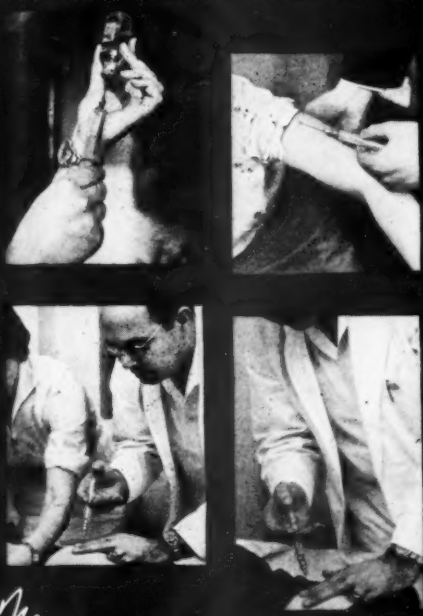

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to this program must have had one year of general surgery. Three of the four years are in clinical neurosurgery and the additional year may be taken in either general surgery, neurology, or the experimental laboratory, depending upon the resident's interests and needs.

The three years of neurosurgery are progressive and give to the resident gradually increasing responsibilities. The first-year resident does complete histories and physicals on each new patient admitted to the service, is second assistant on patients operated by the attending staff and first assistant on patients operated by the senior resident. The second-year resident accompanies the attending man on his visits to the V. A. Hospital and is the operating surgeon on cases at the V. A. Hospital, with the attending physician acting as first assistant. He is relieved of much of the responsibility for the care of patients on the neurosurgical service at the University and a considerable amount of time is allowed for training in electromyography, electroencephalography, neuro-ophthalmology, and other allied specialties.

The third-year resident acts as first assistant on cases done by the attending staff and is operating surgeon and the responsible physician for all ward cases at the University of Kansas Medical Center.

Residents attend both private and ward outpatient clinics and accept responsibility for the emergency ward on a rotation basis. They likewise assist in the teaching of medical students, nurses, and physical therapists.

Specific conferences for the residents in neurosurgery are held in neuropathology and neuroradiology, along with weekly seminars in neurophysiology and neuroanatomy. A combined neurology and neurosurgery journal club is held once a week and a weekly case conference with current slide reviews is also a part of the educational program.

Neurology

Neurology is a section of the Department of Medicine and is under the direction of Dr. A. T. Steegmann. This is an approved three-year training program which includes work in special diagnostic procedures such as myelography, pneumoencephalography, and cerebral arteriography. It has available a well-developed laboratory for neuroanatomy and neuropathology and the staff men are actively engaged in neuroanatomical and neuropathological research. The resident has access to this material, and in addition is encouraged to participate in research projects and learn research techniques. A very close working relationship exists between the section of neurology and the section of neurological surgery.

There are 12 beds available at the University of Kansas Hospital and 38 beds at the Veterans Hospital in Kansas City, Missouri.

The close association between neurology residents and residents in internal medicine provides an excellent experience. Residents in medicine often elect to take service on the neurology service; the reverse is available for interested residents.

Formal educational opportunities include basic science conferences, the journal club conducted in cooperation with the neurosurgical section for three hours of each week, a neuropathology brain-cutting session conference, and a roentology conference held twice a month. Clinico-pathological conference is, of course, available to all residents and problem cases receive a thorough review by the staff at this conference.

The resident is given the opportunity to teach undergraduate students and to participate on an elective basis in any of the undergraduate conferences in which he is interested. He is also asked to present seminars in basic sciences; this has developed into an excellent training program for the resident by increasing his ability to crystallize ideas and improving his methods of presenting them.

Obstetrics and gynecology

The University of Kansas Medical Center is approved for a three-year program in obstetrics and gynecology with an optional fourth year available. This department has as its chairman Dr. Leroy Calkins. In general the program includes inpatient and outpatient experience in these fields, including endocrinology, pathology, general surgery, and sterility.

Research programs are conducted in which residents are encouraged to participate, either with staff men or on their own. Additional experience in tumor surgery is offered selected residents at the Ellis Fischel State Cancer Hospital in Columbia, Missouri.

All residents participate in the teaching of medical students and interns.

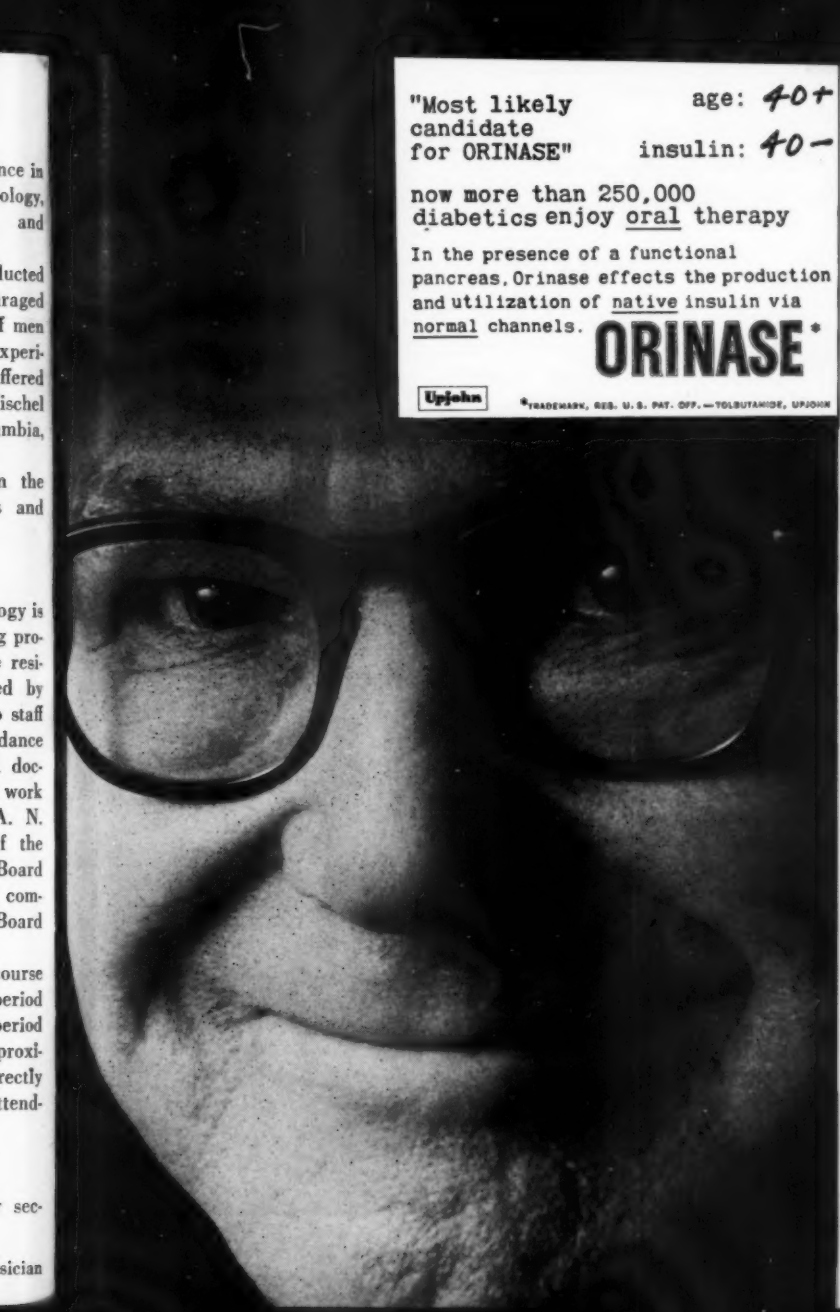
Ophthalmology

The residency in ophthalmology is an approved three-year training program and accommodates three residents. Supervision is provided by the full-time attendance of two staff members and part-time attendance of at least thirteen additional doctors. The department and staff work under the direction of Dr. A. N. Lemoine, Jr. All but one of the seventeen staff members are Board certified, this member having completed the first part of the Board staff work.

A three-month basic science course is required before the training period begins; during his training period the resident will perform approximately 150 operations, all directly under the supervision of an attending man.

Orthopedic surgery

The Department of Surgery sec-



tion of orthopedic surgery is under the direction of Dr. Leonard Peltier. Since the Medical Center operates the only emergency room in Kansas City, Kansas, which has a full complement of staff twenty-four hours a day, a large number of auto accident victims and traumatic injury patients are seen at Center hospitals.

The residency program in orthopedic surgery is fully accredited for training in adult and children's orthopedics as well as fractures. The service consists of 50 beds evenly divided between the two age groups.

The training program normally requires three full years, six months of which may be spent on the orthopedic service of the Veterans Administration Hospital in Kansas City, Missouri. A journal club and a program of basic science seminars augment the educational experience. The division has its own research facilities (its chief was the recipient of the 1957 Kappa Delta award given by the American Academy of Orthopedic Surgeons for his research contributions).

Arrangements can be made with the Department of Surgery for residents, lacking the required year of general surgical residency, to take six months of general surgery and three months each of plastic and neurosurgery.

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Otolaryngology

The Department of Otolaryngology has three residents in a fully approved, three-year training program (which may be modified by taking one year of general surgery followed by two years of otorhinolaryngology). This department is under the direction of Dr. G. O. Proud.

Each resident spends five afternoons a week in the outpatient clinic and assumes the responsibility for night emergency calls every third night. He is, in addition, required to complete at least one research project during the three years. Operating room experience is available three mornings a week and rounds are made on the patients in the hospital twice each day.

Cooperative interdepartmental programs include a pathology seminar held bi-monthly and a journal club held monthly, along with participation in other seminars and formal teaching programs in which the resident has a special interest.

Supervision is provided by two full-time faculty members and eight part-time faculty members who combine their efforts to assist the resident in becoming familiar with all otorhinolaryngologic procedures.

Pathology

The Department of Pathology presents training programs for both interns and residents at the University Medical Center and the Veterans Administration Hospital in Kansas City, Missouri.

There are seventeen senior staff members, twelve part-time staff members, and sixteen residents and fellows, with approximately fifty other staff—research assistants, secretaries, and non-professional assistants—who work under the supervision of Dr. Robert Stowell.

Approximately 40,000 square feet of floor space is devoted to departmental activities with well-equipped laboratories for histochemistry, ultraviolet cytochemistry, biochemistry, protein and physical chemistry, serodiagnostic testing, electron microscopy, auto radiography, radioactive tracer, pathologic physiology, endocrinology, tissue culture, microbiology, exfoliative cytological diagnosis, and cancer statistical analysis.

Regular conferences are held in gross and microscopic pathological anatomy and physiology, neuropathology, gynecological pathology, pediatric pathology, and surgical pathology. There are also general seminars and resident seminars as well as interdepartmental conferences in conjunction with other medical and surgical specialties. The autopsy percentage for the Medical Center and the Veterans Hospital exceeds 70% and the total number of surgical and cytology specimens exceeds 11,000 a year.

The program is fully approved and offers complete training in both pathologic anatomy and clinical pathology with reasonable emphasis on the special fields of each. Resident appointments are generally re-

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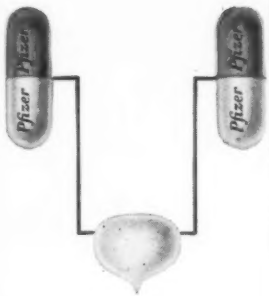

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REFERENCES: **Bourque, J. P.,** and **Joyal, J.:** A Clinical Study of a New Sulfonamide in the Treatment of Urinary Infections, Canad. M. A. J. **68**:337, 1953. **Trafton, H. M.,** and **Lind, H. E.:** Urinary Infections, Clinical and Bacteriological Cure with Terramycin, J. Urol. **69**:315, 1953. **Musselman, M. M.:** Terramycin, Antibiotics Monographs No. 6, New York, Medical Encyclopedia, Inc., 1956. **Longley, J. R.:** Oxytetracycline Therapy in Surgery and Infections of the Urinary Tract, Antibiotics Annual 1955-1956, New York, Medical Encyclopedia, Inc., 1956, p. 358.

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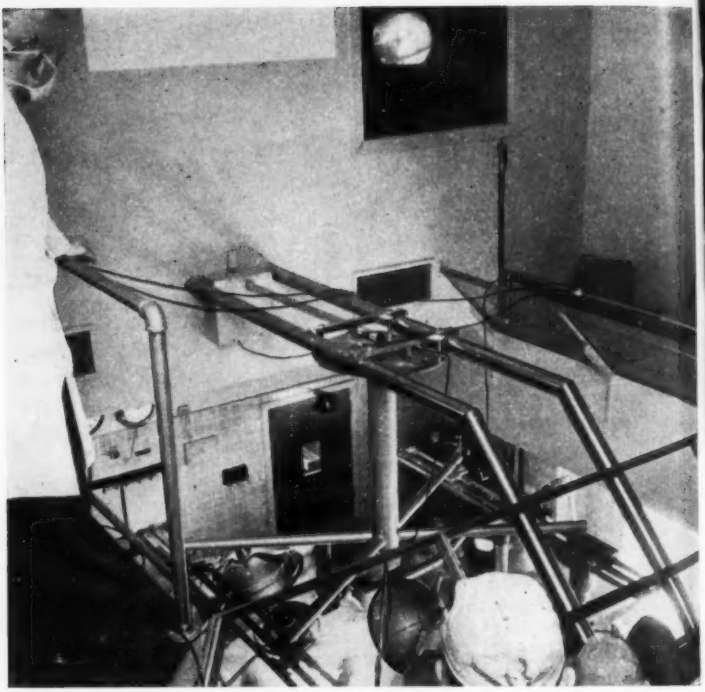
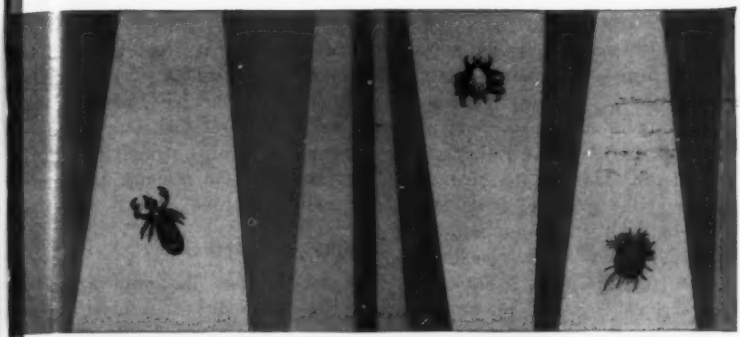


Monitor shows action below in this color telecast. Camera closeup permits observers to view intricacies of surgical technique as part of postgraduate instruction.

newable for periods of three or four years or until all qualifications for certification have been fulfilled.

Those primarily interested in careers in academic pathology or research receive the majority of their experience in the Medical Center, whereas those interested in hospital pathology practice usually have half or more of their training at the Veterans Hospital. In general, the first two years are spent in pathologic anatomy and physiology, surgical pathology and exfoliative cytologic diagnosis. Experiences are also available in hematology, clinical chemistry and microbiology.

A few fellowships are offered to



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Gardner, J.: J. Pediat. 52:448 (Apr.) 1958.

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assist outstanding residents, usually those with one or more years of experience in pathology, for specific training in pathologic anatomy, research in pathology training, or in research. These fellowships usually pay in the range of $3600-$4300 a year. Additional opportunities are available for resident fellow positions from $4200 to $6000 a year.

The emphasis on research training for residents in pathology is probably one of the more unusual features in this program.

Pediatrics

Residency training in pediatrics offers a two-year program with an optional third year. During the two years, each resident rotates through the many elements of the service. In the first year, nine months are spent on the wards and three months in the clinic and newborn nurseries.

In the second year the resident spends equal time on the hospital wards and in the clinic and nursery as a senior resident in charge, as well as additional time in psychiatry and cardiology.

Residents are encouraged to do investigative work either on an independent basis or in collaboration with staff members actively engaged in such work. The program provides for eight residents, four in the first year of training and four in the second year of training.

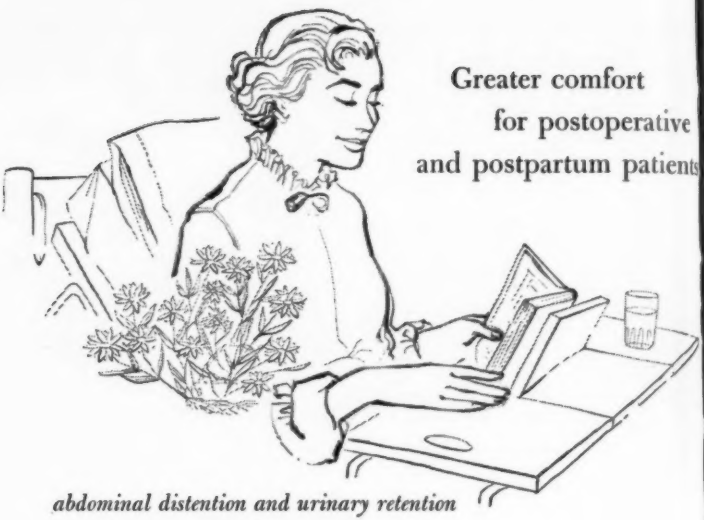
There are 94 beds available for pediatric patients and all of these are used for residency training. In addition, the resident is asked to take the responsibility for all admissions to the emergency room and the residents, in rotation, assume the responsibility of instructing medical students in the common laboratory techniques.

Physical medicine

KUMC has the only approved physical medicine residency program in Kansas. Under the direction of Dr. Donald Rose, the residency is three years in length with beginning dates of July 1 and January 1. Prerequisites are completion of an approved internship, eligibility for licensure in the state of Kansas, and evidence of satisfactory scholarship and character.

Clinical experience is gained in a very active outpatient department—more than 13,000 patient visits annually—and on an inpatient ward designed for this service. This experience embraces technical and clinical training under supervision with affiliate training in the ancillary aspects of rehabilitation. Didactic material includes instruction in the diagnostic and therapeutic management of patients, including electrodiagnostic techniques, therapeutic exercise, kinesiology, muscle testing, occupational therapy theory and adaption of media, speech and hearing abnormalities and therapy, frequent seminars and conferences.

In addition to resident education, the department also administers active training programs for physical



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'Urecholine' helps restore normal function after surgery and childbirth by increasing the muscular tone of the gastrointestinal and urinary tracts. Postoperative "gas" pains can frequently be prevented or promptly relieved—with less need for uncomfortable enemas, intubation, and suction apparatus. Micturition is facilitated—without the discomfort and risk of infection inherent in catheterization.

Administration and dosage: may be given prophylactically or therapeutically after surgery or childbirth. Usual oral dosage: 10 to 30 mg. three or four times daily. Usual subcutaneous dosage: 5 mg. three or four times daily.

Other indications: gastric atony and retention following vagotomy and other surgical procedures; chronic functional urinary retention due to atony without obstruction; megacolon, including congenital megacolon (Hirschsprung's disease); certain cases of paralytic ileus; to counteract side effects of antihypertensive ganglionic blocking drugs.

Supplied: 5 mg. and 10 mg. tablets, bottles of 100; 1-cc. ampuls containing 5 mg.

Urecholine is a trade-mark of MERCK & CO., Inc.

MERCK SHARP & DOHME, DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

Spacious, modern lounge, one of the facilities in KU's student center.

therapists and occupational therapists in which the resident assists. Independent research projects are encouraged.

Plastic surgery

A section of general surgery, plastic surgery is directed by Dr. David Robinson (also responsible for the direction of the emergency room service). Training programs are two and three years in length; prerequisite is three years of approved residency in general surgery.

As in other services, heavy emphasis is placed upon graduated, independent responsibility, carefully tailored to the training background, and proven ability of the individual.

The section maintains an inpatient and outpatient service. Almost one-third of the work is with children under the auspices of the Kansas Crippled Children's Commission.

Facilities and opportunities are available for basic science instruction in anatomy, pathology and independent laboratory research projects.

Psychiatry

The Department of Psychiatry offers a three-year Board approved residency program which is designed to give the resident well-rounded training in general psychiatry and adequate preparation for examination by the American Board of Psychiatry and Neurology.

The program also provides oppor-

tunity for introductory contacts in various special areas of psychiatric work, such as mental hygiene and child guidance, college mental hygiene, psychiatry in penal and correctional institutions and in state hospitals and schools for the mentally defective and retarded. Under the direction of Dr. William F. Roth, its activities in the Medical Center are housed in a new air-conditioned building designed specifically for the needs of the modern department of psychiatry.

The assignment of a resident is made only after discussions are held with him relative to his special circumstances and needs; such discussions take place prior to the time of his acceptance of the residency. This assignment may be to the University of Kansas Medical Center or to the Kansas City, Missouri, Veterans Administration Hospital. In addition to his primary assignment, he may also be assigned to the Child Study Unit at the Medical Center, to the Kansas Children's Receiving Home, to the Atchison County Guidance Clinic, or to the psychiatric service of the children at Mercy Hospital.

All residents attend the courses of lectures arranged for each of the three years. These lectures are presented by the Associated Psychiatric Faculties of the Greater Kansas City Area.

Clinical

During his first year of clinical experience, the resident is assigned to the psychiatric inpatient service for training in methods of clinical examination, diagnosis, and hospital administration. During this year the resident is expected to give special attention to the basic sciences of psychiatry and to select a problem involving the correlation of one or more of these fields with clinical psychiatry. This problem may be pursued during the subsequent years of his residency.

During the second year of training, the resident is assigned to neurology for three months full time or six months half time. The remainder of time is equally divided between pediatric psychiatry and outpatient psychiatry.

For the third year, half of the time of the resident is in the psychosomatic section for consultation and teaching on cases of the other wards and clinics. The remainder is divided equally between continuation of supervised experience in psychotherapy with both inpatients and outpatients and an elective to provide an experience in some special area of interest.

The new facilities at the Medical Center provide for 60 inpatient beds and 17 day-patient beds as well as an outpatient department. It has been the aim of the department to fully correlate the teaching of psychiatry and the activities of the Department of Psychiatry with all other disciplines in such a way that the patient's treatment becomes a unified whole.

No. 9 in a descriptive series on Abbott specialties

How to match anticonvulsant therap to the specific type of seizur

In most cases the physician must treat epilepsy symptomatically. Apart from exceptional cases amenable to surgery, outright cure is not possible.

But *control* of the seizures is now practicable in an ever-growing percentage of patients.

The physician's first task is to make certain what type (or types) of epilepsy his patient suffers from. Clinical experience and information from the electroencephalogram are his main guides. He can then draw up a tentative plan of treatment, as follows.

Tridione® (*Trimethadione, Abbott*) and Paradione® (*Paramethadione, Abbott*) are two prime weapons against *petit mal*, myoclonic, and akinetic seizures. Both drugs are closely related chemically, but Tridione often works where Paradione won't, and vice versa. Side effects are not common with either, though Paradione has the lesser incidence.

Phenurone® (*Phenacemide, Abbott*) is most effective against psychomotor epilepsy, and can be useful in treating *grand mal, petit mal*, and mixed types of seizure. Used with discretion, it often brings control where all other therapy has failed. But it is a potent drug, and precaution must be observed.

Gemonil® (*Metharbital, Abbott*) is allied to phenobarbital, but is relatively non-toxic, and comparatively free of the marked sedative effects of phenobarbital. It is often effective in controlling *grand mal*, myoclonic epilepsy, and mixed-type seizures symptomatic of organic brain damage.

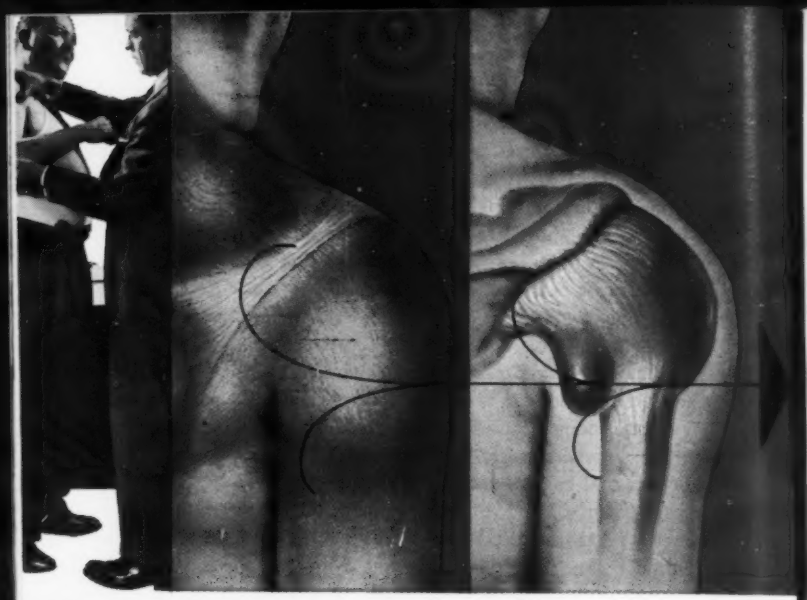
Peganone® (*Ethotoin, Abbott*) is the most recent addition to the Abbott range of anticonvulsants. It is a hydantoin notable for its low toxicity. Peganone is indicated primarily for control of *grand mal* seizures. It is also helpful in controlling psychomotor seizures.

The guideposts above can only show general directions for your therapy. You will find, for example, that many patients respond better to a combination of two or more agents, than to any one alone.

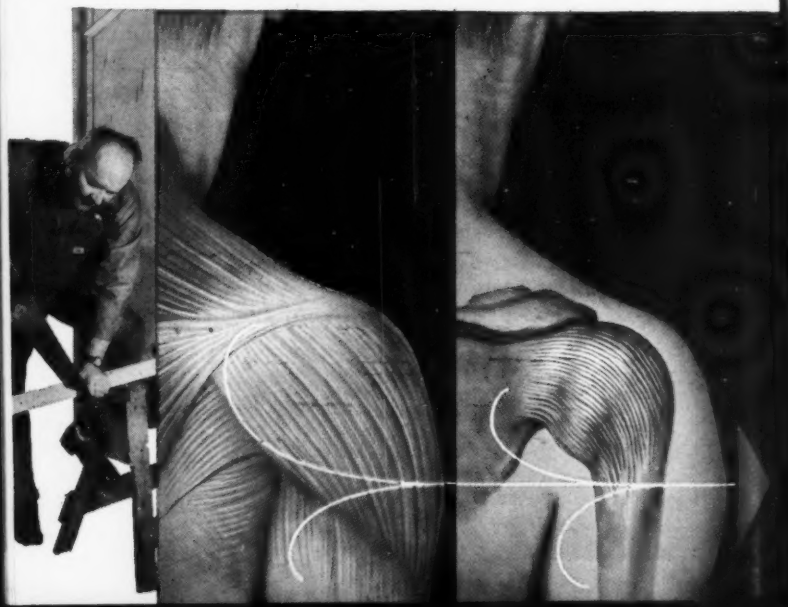
Singly or in combination, this quintet of anticonvulsants has helped reclaim many an epileptic for virtually a normal life. With this aid you can often take the patient from childhood through the adult years—comfortably, securely, and free of fear.

Abbott

Once a specific therapy is begun, EGGs should be done regularly, to study the patient's response to continuing treatment.



"Rheumatoid arthritis is a constitutional disease with symptoms affecting chiefly joints and muscles."[1] "Pain in the affected joint is accompanied by splinting of the adjacent muscles, with resultant 'muscle spasm.'"[2]



"1 "Pain
pasm."2

rheumatoid arthritis involves both joints and muscles

only MEPROLONE®

THE FIRST MEPROBAMATE PREDNISOLONE THERAPY

meprobamate to relieve muscle spasm
prednisolone to suppress inflammation

relieves both muscle spasm and joint inflammation

MEPROLONE is the only anti-rheumatic-antiarthritic designed to relieve simultaneously (a) muscle spasm (b) joint-muscle inflammation (c) physical distress . . . and may thereby help prevent deformity and disability in more arthritic patients to a greater degree than ever before.

SUPPLIED: Multiple Compressed Tablets in bottles of 100, in three formulas:
MEPROLONE-5—5.0 mg. prednisolone, 400 mg. meprobamate and 200 mg. dried aluminum hydroxide gel.
MEPROLONE-2—2.0 mg. prednisolone, 200 mg. meprobamate and 200 mg. dried aluminum hydroxide gel.
MEPROLONE-1—supplies 1.0 mg. prednisolone in the same formula as MEPROLONE-2.

1. Comroe's Arthritis: Hollander, J. L., p. 149 (Fifth Edition, Lea & Febiger, Philadelphia, Pa. 1953). 2. Merck Manual: Lyght, C. E., p. 1102 (Ninth Edition, Merck & Co., Inc., Rahway, N. J. 1956).

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Radiology

The residency in radiology is a three-year program consisting of training in diagnostic x-ray therapy, radium therapy, and clinical usage of isotopes. The resident is rotated through these various services on a monthly rotation basis.

In addition to this program the resident is expected to spend some time in pathology. This varies with the abilities of the resident, depending upon his background and the facilities available in pathology. In addition, most residents spend one month at Oak Ridge learning basic isotope instrumentation. This again varies somewhat with the individual.

The resident participates in conferences with the staff of other specialties and assists in the training program for medical students and technicians.

The residency is one primarily of teaching by experience and is under the direction of the departmental chairman, Dr. Galen Tice, and his staff.

General surgery

The general surgery program is integrated with that of the Veterans Administration Hospital in Kansas City, Missouri and the Veterans Administration Hospital in Wichita, Kansas. Residents are chosen jointly by all three institutions; the work in each institution complements and augments the entire training program. Six men are chosen for each of the first three years, four of whom will carry through the third and

Corner of the Clendening Room in the History of Medicine Library.

UNIVERSITY OF KANSAS MEDICAL CENTER
(PATIENT STATISTICAL REPORT)

SERVICE	ADMISSIONS	INPATIENT DAYS	O.P. CLINIC VISITS	NEW PRIVATE O.P.	OPERATIONS MJ.	OPERATIONS MI.	OPERATIONS O.P.	AVERAGE STAY (DAYS)
CARDIOVASCULAR	406	3977	1198	196				9
PHYSICAL MED.**	27	1462	3885	112				65
MEDICINE	2359	28094	26733	734				12
METABOLIC*	30	575	622	21				17
NEUROLOGY	211	2195	1261	196				10
GASTROENTEROLOGY*	30	371	172	21				15
X-RAY	35	391		207	1	13		12
HEMATOLOGY*	96	1344	590	72				14
DERMATOLOGY	12	177	940					15
CHEST	164	12754	863	1				79
PSYCHIATRY	117	7498	1382	57				49
PEDIATRICS	1322	10393	10141	237				8
SURGERY, GENERAL	1397	18571	4145		1196	493	136	11
NEUROSURGERY	439	5624	1142		235	31		11
PLASTIC SURGERY	552	7092	3276	157	327	897	479	12
ENT	689	2638	10704	548	222	743	86	4
EYE	647	3918	4625		27	567	35	6
UROLOGY	854	12091	3824		525	899	280	13
ORTHOPEDICS	526	9734	7450	550	227	102	87	18
NEWBORN	1806	11127						5
DENTAL	39	123	633		12	92	6	2
GYNECOLOGY	802	8004	4159	490	205	474	13	9
OBSTETRICS	2107	11091	9169	490	21			5
TOTAL	14667	159244	96914	3599	2998	4311	1122	10

EMERGENCIES	15285	BED CAPACITY	545(Av.)	AUTOPSY PERCENTAGE	72%
DELIVERIES	1839	CONSULTATIONS	6167	AV. CENSUS EXCL. NB	404
STILLBIRTHS	33	TOTAL TREATED	15087	AV. % OCCUP. EXCL. NB	74%

* Service started 2-1-56
** Service started 11-1-55

fourth years of the general surgery training program if their work proves to be mutually satisfactory. Two of the six men are chosen with the intent and understanding that they are receiving general surgery training in preparation for entrance into a specialty surgical field. A total of twenty men are in the general surgery residency training program at the three institutions at any given time. This program is under the direction of the departmental chairman, Dr. Frank F. Allbritten.

Each of the residents receiving general surgical training in preparation for specialty surgery receives six months of specialty surgery training and eighteen months of general surgery training during his two years as resident on the general surgery service.

Those preparing for general surgery spend six months of the first year in specialty surgery and six months on the general surgery services. During the second year, the resident spends six months on a problem in the laboratory or in a field of clinical investigation. It is the intent of the program that an original contribution to surgical literature be made by the resident during this time. The remaining six months of the second year are spent on the private surgical services at the University of Kansas Medical Center.

During the third year, nine months are given to clinical surgery and three months to surgical pathology. The entire fourth year is spent in clinical surgery with senior resident responsibilities. An increasing amount of responsibility is given the resident throughout the entire program and at its completion he has developed the skill and judgment required for eligibility for examination by the American Board of Surgery.

The columnar system in this instance, as in others, assures the resident that he will be retained as long as his work proves to be satisfactory. Appointments are made on a yearly basis; in the event the work is unsatisfactory or the desire and enthusiasm of the resident wanes, the program can be discontinued.

The University of Kansas is quite fortunate in maintaining a relatively high indigent patient load and the affiliation with the two Veterans Administration hospitals provides excellent material for training purposes.

All resident work is carefully supervised by competent staff men with careful attention being given to increasing the resident's responsibility consistent with his developing ability.

One of the unique features of the program in surgery is the availability of an active surgical biophysics laboratory under the direction of Dr. Michael Klein, whose specialty is in the field of physics with emphasis on electronics.

Pictured are mem
bers of the medica
faculty on the serv
ing line at KU
Christmas dinner fo
employees.

Urology

The section of urology, with Dr. William Valk as chief, is a part of the Department of Surgery and has available beds at both the Medical Center and the Veterans Administration Hospital in Kansas City, Missouri. Two first-year residents are accepted each year and the residency training program is approved for three years.

In addition to clinical training, the urology section also maintains a well-equipped laboratory and en courages each resident to participat not only in the clinical services bu in either independent or collabora tive investigative work.

Thoracic surgery

A position for a resident in thor acic surgery was recently approve and the first resident in this specialt entered training in July 1957. Th resident has assumed responsibilit for the thoracic surgery arising fro

RESIDENCIES & FELLOWSHIPS
UNIVERSITY OF KANSAS MEDICAL CENTER

SERVICE	POSITIONS	BEDS KUMC	BEDS AFFILIATE
ANESTHESIOLOGY	8	0	0
CHEST DISEASES	Incl. in Int. Med.	42	0
ENT	3	20	15
EYE	3	20	
MEDICINE	28	124	218
NEUROLOGY	1	10	0
NEUROSURGERY	2	14	10
OB-GYN.	9	51	0*
ORTHOPEDICS	2	38	0*
PATHOLOGY	11	0	0
PEDIATRICS	8	69 (25)**	0
PHYSICAL MEDICINE	2	7	0*
PLASTIC SURGERY	2	17**	5
PSYCHIATRY	6	77	0
RADIOLOGY	4	2	0
SURGERY	20	95	58
THORACIC SURGERY	1	0	13
UROLOGY	6	20	19

* Complete responsibility not assigned.
** Pediatric beds on other services.

the ward services and is under the direction of the senior staff members who have been specially prepared in this field. This is a two-year program.

Statistical information

Listed above is a schedule of the residencies available and the number of hospital beds in the Medical Center and affiliated hospitals.

Stipends, with the exception of those mentioned in the description of the various residency programs, are $125 a month for a first-year resident, $150 for a second-year resident, $175 for third-year residents and where such exist $200 for fourth year residents. Room and board are not furnished although sleeping facilities are made available to residents on call.

Community and campus

Kansas City, Kansas is a community of more than 100,000. It adjoins Kansas City, Missouri, a community of some 400,000. All the cultural and educational attractions of a metropolitan area are thus available as well as attendant recreational opportunities.

elease from pain and inflammation with

BUFFERIN® IN ARTHRITIS

alicylate benefits with minimal salicylate drawbacks

apid and prolonged relief—with less intolerance. The analgesic and specific anti-nflammatory action of BUFFERIN helps reduce pain and joint edema—com-ortably. BUFFERIN caused no gastric distress in 70 per cent of hospitalized rthritics with proved intolerance to aspirin. (Arthritics are at least 3 to 10 imes as intolerant to straight aspirin as the general population.[1])

o sodium accumulation. Because BUFFERIN is sodium free, massive dosage for rolonged periods will not cause sodium accumulation or edema, even in ardiovascular cases.

ach *sodium-free* BUFFERIN tablet contains acetylsalicylic acid, 5 grains, and the antacids mag-esium carbonate and aluminum glycinate.

eference: 1. J.A.M.A. 158:386 (June 4) 1955.

ANOTHER FINE PRODUCT OF BRISTOL-MYERS

Bristol-Myers Company, 19 West 50 Street, New York 20, N. Y.

A new library is under construction and nearing completion which will provide housing for the 50,000 volumes of the Medical Center along with seating space for 170 students. In addition, the scientific library of the University of Kansas City, the nationally-known Linda Hall Library, and the Library of the University of Kansas at Lawrence give an almost unparalleled collection of reference material when added to the Library of the History of Medicine and the Medical Center library.

Housing

Housing is secured by residents on an independent basis although a card file of available housing is maintained in the Registrar's Office and available to all who wish to use it. Ample employment is available in the Medical Center for wives of residents and they are encouraged to come to the Medical Center.

Plans are also being made to investigate the possibility of constructing an apartment housing project for the staff of the Medical Center. This should become a reality soon.

Several churches are in the immediate Medical Center area. Two modern motor hotels adjoin the campus to provide living facilities for visitors. A shopping district is within five minutes walking distance and busses to the downtown district run at frequent intervals. For those who live in the area, a new grade school is under construction for the children.

Scenic northeast Johnson County is a rapidly expanding suburban area which is only minutes away from the Medical Center.

Perhaps the greatest asset of the University of Kansas lies in its friendly, energetic pursuit of new and improved types of medical education and care. The warm atmosphere, the frank self-analysis and the vision of its young faculty and leaders have created a unique type of medical center, one which offers its residents a full opportunity for learning, patient care and research.

SOMETHING TO THINK ABOUT . . .

A total of 38,700 persons were killed and 2,525,000 injured in traffic accidents in the U. S. last year. Bad weather? Defective automobiles? Not so. Bad driving conditions prevailed in *less than 15 percent* of the fatal accidents. And more than 95 percent of vehicles involved were in *good condition.*

—From a report by *The Travelers Insurance Company*

Medical Ethics and Etiquette

Perrin H. Long, M.D.

SECTION 5. "A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him, and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients."*

The fact that a physician has the right to choose whom he will take care of does not seem too well understood, either by doctors, or the laity. A study of newspaper files of alleged callousness on the part of doctors shows that a misunderstanding of this point is frequently the basis for complaints made to medical societies or, as happens only too frequently, in the public press.

Conversely, the right of the patient to choose his doctor must be preserved in any free society. The "free choice of physician" must be considered a right of our people.

We must, however, remember that in an emergency, physicians must respond, unless incapacitated by illness, by being engaged in the care of another patient, or away from their places of residence.

This means that physicians must not pass or leave the scene of an accident until the injured are properly cared for on an emergency basis.

They also must respond to emergency calls resulting from heart attacks, poisonings, attempted suicides, hemorrhage, etc., even though the emergency for which they are called may well be out of their special field of competence, or they believe that other physicians will reach the scene of the emergency before they do.

By always being ready to respond to a call, the physician protects his own good name and that of his profession. He must bear in mind that the most frequent and often virulent public criticism of our profession results from the fact that someone who was injured, or ill, or someone who

*Principles of Medical Ethics. J.A.M.A. *164*:1484 (July 27), 1957.

PREAMBLE

"These principles are intended to aid physicians individually and collectively in maintaining a high level of ethical conduct. They are not laws, but standards by which a physician may determine the propriety of his conduct in his relationship with patients, with colleagues, with members of allied professions, and with the public."

was frightened by the sight of injury, or illness, could not get a doctor promptly.

From our experience we know that frightened and unenlightened people may become terribly muddled in an emergency and phone every doctor in the book. We must make allowances for this, even though our natural tendency is to be intolerant of their lack of understanding.

There are certain rules of conduct which must be observed by a physician who has responded to an emergency call. To begin with, if several doctors arrive at the scene of an accident or emergency, *he who arrives first is in charge.* In the emergent situation, a physician called to see another physician's patient should provide only for the immediate medical needs of the patient, and should be ready to stand aside after reporting what he has done, when the patient's physician arrives. If the emergency is obstetrical in nature, and a physician delivers a colleague's patient, he is entitled to a fee for the services he has rendered. This is also true for other services rendered in emergencies. As is only natural in our profession, we assume the same responsibilities, and exercise the same zeal in the treatment of a colleague's patient as we would with one of our own patients.

Once an individual has entrusted himself to a physician's care, that physician must do his utmost for that patient, regardless of his personal feelings, until he has either been dismissed by the patient, or he himself has given adequate notice to the patient that he will, or can, no longer take care of him. "Adequate notice," I believe, should be defined as one in writing or in printing, and should reach the patient about a month prior to the termination of the doctor's service. The most common instance in which a doctor might wish to notify his patients of the termination of his services is on retirement. When a doctor is going to be incapacitated, or absent from practice for any extended period of time, he should notify his patients.

The final injunction in this Section, which has to do with the solicitation of patients, is one which must be defined, in certain respects, relative to local customs and traditions. It is considered ethical for a physician to place a professional card in

medical journals in certain areas of this country. Furthermore, in towns and smaller cities, the newspapers frequently carry the professional cards of the practitioners.

In all other respects, solicitation of patients is not only unethical but will bring down the wrath of fellow practitioners on him who attempts it. The ban on solicitation is designed to protect the public from the glib salesman or advertiser. This is especially true if solicitation is suspected when one sees the patient of a colleague in an emergency, or in the absence of the colleague. A doctor must also use great care, no matter what the provocation or occasion may be, not to denigrate other doctors. However, this injunction does not mean that one should not follow the principle outlined in Section 4, which deals with the exposure of unsavory colleagues.

It also should be made clear that the injunction relative to advertising and solicitation applies to groups of physicians and hospitals as well as to individual physicians. While it is permissible to use a plaque M.D. on a physician's car, M.D. or Doctor of Medicine on cards and stationery, to announce the opening or closing of an office, to include the name of a deceased physician (with dates of birth and death) on the stationery of his group or clinic, a physician should not broadcast reprints, nor should he permit his name to be included in commercial directories other than the telephone book. He should be very careful relative to statements to the press, or to what he may say over the radio, or when participating in television programs. In all of these areas, it is often best to consult first with the proper authority of the local medical society before doing anything. It is not considered a breach of etiquette if a physician permits his name to be used in the promotion of civic enterprises.

In conclusion, I would also suggest the doctors' wives observe certain of the precepts which are included in this Section if they wish to be a real help to their husbands.

Mediquiz

These questions are from a civil service examination recently given to candidates for physician appointments in municipal government.

Answers will be found on page 175

1. Volume of urine excreted daily by a healthy human adult is: (A) 500 cc; (B) 1500 cc; (C) 2500 cc; (D) 3500 cc.

2. Which of the following does not normally result in an increase in urine output: (A) increase in blood sugar; (B) increase in blood urea; (C) increased protein intake; (D) increased salt intake.

3. In cyanosis, the amount of unsaturated hemoglobin in the blood is more than: (A) 1 gm; (B) 2.5 gms; (C) 4 gms; (D) 5 gms.

4. Hemolysis of erythrocytes can occur by: (A) lowering plasma osmotic pressure by dilution with a hypertonic solution; (B) lowering plasma osmotic pressure by dilution with a hypotonic solution; (C) increasing plasma osmotic pressure by dilution with a hypertonic solution; (D) increasing plasma osmotic pressure by dilution with a hypotonic solution.

5. Dyspnea on exertion is evident when the vital capacity falls below: (A) 95%; (B) 90%; (C) 80%; (D) 60%.

6. The normal vital capacity of an adult is: (A) 1500 cc; (B) 2500 cc; (C) 3500 cc; (D) 4500 cc.

7. A newborn is delivered of an Rh negative mother and an Rh positive father. Past history reveals one normal infant and one two-month abortion. No other information is known. Cord blood determinations are done and the hemoglobin is found to be 10.5 gm and the bilirubin 7.4 mgm. The correct procedure is: (A) observe and repeat determinations in 12 hours; (B) simple replacement transfusion; (C) exchange transfusion; (D) no procedure.

8. In a suspected case of erythro-

blastosis being observed, the laboratory finding with most value in determining the progress and advisability of exchange transfusion is: (A) hourly hemoglobin determination; (B) hourly bilirubin determination; (C) hourly icterus index determination; (D) hourly red cell counts.

9. After the delivery of an erythroblastotic stillborn, the mother should be told that a subsequent pregnancy would be without danger of erythroblastosis in approximately (A) one year (B) three years; (C) ten years; (D) never.

10. Sudden, painless vaginal bleeding in the last trimester of pregnancy usually points to: (A) placenta priva; (B) placenta abruptio; (D) co-existing carcinoma of the cervix; (D) ectopic pregnancy.

11. The most common cause of serious postpartum bleeding is: (A) uterine atony; (B) retained placenta; (C) tears in birth canal; (D) disturbance in coagulation mechanisms.

12. In cretinism, the thyroid gland is usually: (A) larger than normal; (B) normal; (C) smaller than normal.

13. An indication for splenectomy is: (A) hemophilia; (B) idiopathic thrombocytopenic purpura; (C) secondary thrombocytopenic purpura; (D) non-thrombocytopenic purpura.

14. In lobar pneumonia, the earliest chest finding elicited is usually: (A) fine inspiratory rales; (B) local dullness; (C) bronchial breathing; (D) coarse musical rales.

15. In the Argyll Robertson pupil, the pupil reacts: (A) not to light or accommodation; (B) not to light but does to accommodation; (C) to light but not to accommodation; (D) to light and accommodation.

16. Paralysis of one of the following nerves causes a loss of opposition of the thumb and a resulting "ape hand" (A) ulnar nerve; (B) radial nerve; (C) median nerve; (D) musculocutaneous nerve.

17. In hyperventilation due to the CO_2 loss, the blood pH: (A) rises; (B) falls; (C) remains stationary; (D) inversely follows the urine pH.

18. Tularemia is a subacute infectious disease caused by Pasturella tularense. It is most commonly contracted in handling: (A) dogs; (B) cows; (C) goats; (D) rabbits.

19. Tularemia is transferred to man by the bite of: (A) body louse; (B) wood tick; (C) mosquito; (D) horse fly.

20. Granulomatosis lesions similar to Boeck's sarcoid are produced by

one of the following if they enter a wound: (A) dust; (B) calcium carbonate; (C) magnesium silicate; (D) iodine.

21. Optic atrophy is a characteristic feature of poisoning with: (A) ethyl alcohol; (B) methyl alcohol; (C) mercury; (D) lead.

22. Eisenmenger's complex is a variation of tetralogy of Fallot in which one of the following is missing: (A) patent I.V. septum; (B) pulmonic stenosis; (C) displacement of the aorta; (D) hypertrophic right ventricle.

23. The salt concentration of the sweat in a patient with cystic fibrosis of the pancreas is: (A) increased; (B) decreased; (C) not affected.

24. In the C reactive protein test an abnormal reacts with the C polysaccharide of: (A) streptococcus; (B) staphylococcus; (C) pneumococcus; (D) diplococcus.

25. Of the following, pellagra is due to deficiency of: (A) thiamine; (B) pantothenic acid; (C) riboflavin; (D) nicotinic acid (niacin).

26. A 40-year-old colored male enters the hospital complaining of fever, malaise, weakness, abdominal distention, watery non-foul diarrhea and weight loss for four months

Examination reveals dehydration, disorientation, slight nuchal rigidity, lungs clear to auscultation and percussion, and a sense of nodulation with some tenderness within the entire abdominal cavity. White blood count is normal. Hemoglobin is 11.0 Gm./100 cc. Chest film reveals punctuate nodulation in both lung fields. After rehydration has been carried out, the one of the following which should *not* be done is: (A) spinal tap; (B) surgical exploration of the abdomen; (C) urine culture; (D) placement of patient on streptomycin.

27. Cortisone and corticotropin are beneficial for patients with rheumatoid arthritis because they: (A) reduce the inflammation; (B) cure the rheumatic process; (C) rebuild joint cartilage; (D) produce diabetes.

28. Of the following procedures, the one which would be most important in producing safe drinking water is (A) treating the reservoir with copper sulphate; (B) chlorination; (C) aeration; (D) screening.

29. Early signs of excessive exposure to x-ray or radium can be best detected by periodic: (A) chest x-rays; (B) urinalysis; (C) liver function tests; (D) blood counts.

Answers on page 175

RP REVIEWS BOOKS

About Doctors

Conducted by SAUL A. KUCHINSKY

THE LIFE AND WORK OF SIGMUND FREUD. *Jones, Ernest.* Vol. 3, (The Last Phase 1919-1939) *N. Y., Basic Books,* 1957. 537 pp. $7.50.

The final volume of the most important medical biography published in America since Harvey Cushing's Pulitzer Prize winner on William Osler closes out a trilogy that first appeared in 1953. Volume 1 was titled "The Formative Years and the Great Discoveries 1856-1900." Volume 2, in 1955, was "Years of Maturity 1901-1919."

The last volume is largely an account of Freud's personal problems and a presentation of the writings of his later years.

It is sardonic and almost axiomatic that the man most responsible in medicine for the easing of emotional stress should have been so besieged by necessary adjustments himself. A chronology of events shows the death of his daughter Sophie and, in the same year, his closest friend and colleague, von Freund. There follows 33 operations for mouth cancer, the breaking away from him and eventual psychosis of his two close colleagues Rank and Ferenczi, Freud's flight from the

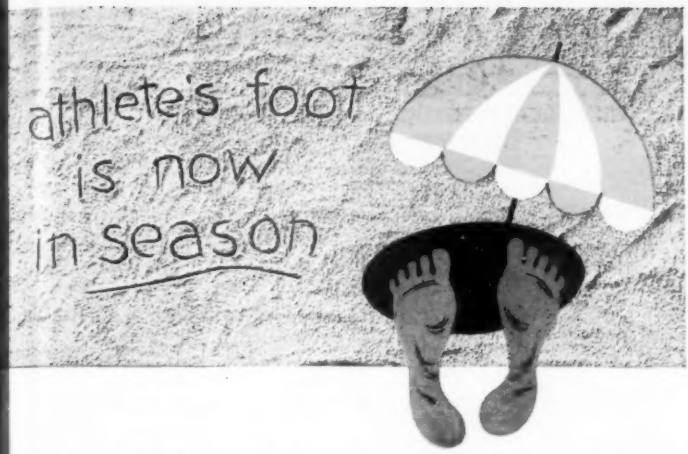
Nazis, the inoperable recurrence of his cancer. The agony, many operations and the crude prosthesis which followed the removal of his upper jaw, is awesome.

There were, too, the incessant ideological and even petty personal feuds of the inner circle. There were the censorship attacks of the police authorities who equated psychoanalysis with rampant sexuality.

Through it all Freud worked and even maintained a sense of humor. But the eventual acceptance of psychoanalysis, says the author, himself a leading Freudian, gave the master no pleasure because of its long rejection.

The volume is inclusive and authoritative and closes out a definitive study in biography of one of medicine's giants. It is, unfortunately, obscured as easy reading by a constant cutting back across the story line of material whenever an idea suggests itself to the author's mind.

The book and the series will be read widely, however, because, as the author states in closing, "Man's chief enemy and danger is his own unruly nature and the dark forces pent up within him. If our race is lucky enough to survive for another thousand years the name of Sigmund Freud will be remembered as that of the man who first ascertained the origin and nature of those forces, and pointed the way to achieving some measure of control over them."



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PD-75

What's the Doctor's Name?

by Victor R. Jablokow

He was born in a Puritan family September 10, 1624 at Wynford Eagle in Dorsetshire, England. At the age of 18 he entered Oxford but had to leave after a few months in order to fight in the Army of the Parliament against the King. Four years later he began the study of medicine at Oxford and at the age of 24 graduated as a Bachelor of Medicine. Soon afterwards he was appointed a Fellow in All Souls College in place of an expelled Royalist.

In 1651 his medical studies were interrupted by a second civil war in which he took part as a captain of the cavalry in the Puritan Army.

In 1655 he gave up his medical education, married and began to practice. Later he is said to have studied for some time at Montpellier, France, under the great Barbeyrac. In 1663 he became a licentiate of the Royal College of Physicians. At the age of 52 he at last obtained his doctor's degree from Cambridge.

His first written work dealt with fevers ("Methodus Curandi

Febres"); it was published in 1666 and was dedicated to Robert Boyle. In this book he advocated a cooling treatment of fevers. This was favorably received both in England and on the Continent. In a later edition (1676) under the title "Observations Medicinae" the book contains many excellent descriptions of diseases which are worth reading even today. He described smallpox, rheumatic fever, scarlet fever, influenza, gout, malaria, hysteria, plague.

He rejected the traditional dogmas of medicine and insisted that clinical observation is more important than theory; he emphasized that medicine can be learned only at the bedside, that disease should be studied as any other natural phenomenon. He found that the Jesuit's powder (quinine) was curative in malaria and employed it extensively, although many of his colleagues fought this innovation.

Continuing to write, his fame grew steadily, his practice increased and by the end of his life (he died in 1689 at the age of 65) he was universally known as one of the greatest physicians of his time. His important contributions to medicine won due recognition and he himself was regarded as the "English Hippocrates."

He was buried on December 31 at St. James Church, Westminster, his epitaph reading: "Medicus in omne aevum nobilia"—a physician famed throughout the ages.

Answer on page 175.

Leads and Needs

Rates

Personal classified advertising rates are $4.00 for ads of thirty words or less plus 12c for each additional word. When a box number is used and answers sent care of RESIDENT PHYSICIAN there is an additional charge of 50c. Add four additional words for a box.

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ALL CLASSIFIED ADS PAYABLE IN ADVANCE. Forms close 15th of month prior to date of issue. RESIDENT PHYSICIAN, 1447 Northern Boulevard, Manhasset, New York.

PHYSICIANS WANTED

GENERAL PHYSICIANS: Under 35 years of age to assist specialists in medical care program of 10 Miners Memorial Hospitals; full-time positions starting compensation of $12,000 (yearly increments) U.S. citizenship and eligibility for Kentucky, Virginia or West Virginia license required. Appointments begin July 1st. Address: Clinical Director, Miners Memorial Hospital Association, 1427 Eye Street, N.W., Washington 5, D.C.

WANTED—FAMILY PHYSICIAN FOR MEDICAL GROUPS in New York City affiliated with a prepaid medical plan. Two years of residency in medicine or its equivalent required. Starting income $10,000-$12,000. Write to Dr. Howard J. Brown, Health Insurance Plan of Greater New York, 625 Madison Avenue, New York 22, New York.

GENERAL PRACTITIONER—YOUNG MAN to associate with 33 year old A.A.G.P. member; practice established good location; well equipped office; good terms; early partnership for right man. Write: E. B. Spangler, M.D., Box 390, Princeton, West Virginia.

PHYSICIAN WANTED: Moderate sized chest disease hospital; residency training pulmonary disease—man 28-40 years single; graduate approved school with one year internship at least. Maintenance. State salary. Will Rogers Memorial Hospital, Saranac Lake, New York.

VIEWBOX DIAGNOSIS

(from page 21)

EMPHYSEMATOUS BLEBS

Note numerous thinwalled, irregularly-shaped blebs relatively free of lung structure, amongst which are compressed the comparatively uninvolved regions.

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MEDIQUIZ ANSWERS

(from page 160)

1 (B), 2 (D), 3 (D), 4 (C), 5 (B), 6 (C), 7 (C), 8 (B), 9 (D), 10 (A), 11 (A), 12 (A), 13 (B), 14 (B), 15 (B), 16 (C), 17 (A), 18 (D), 19 (B), 20 (B), 21 (B), 22 (B), 23 (A), 24 (C), 25 (D), 26 (B), 27 (A), 28 (B), 29 (D).

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WHAT'S THE DOCTOR'S NAME?

(answer from page 171)

The doctor is Thomas Sydenham

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RESIDENT RELAXER

(puzzle on page 23)

D	I	G	I	T	■	D	■	B	■	E	L	E	C	T
E	■	I	N	S	P	I	R	A	T	O	R	Y	■	H
W	A	D	■	E	U	■	H	■	H	S	■	E	R	Y
A	B	■	A	T	T	R	I	T	I	O	N	■	H	M
R	O	D	■	S	S	■	N	■	O	T	■	S	E	E
■	U	■	S	E	■	G	A	S	■	E	M	■	U	■
B	L	U	E	■	T	■	E	■	C	■	O	H	M	S
■	O	S	M	O	D	Y	S	P	H	O	R	I	A	■
S	M	E	E	■	S	■	T	■	R	■	I	O	T	A
■	A	■	N	S	■	O	H	M	■	B	A	■	O	■
E	N	D	■	P	D	■	E	■	L	U	■	A	S	H
N	I	■	P	E	R	I	S	P	E	R	M	■	I	O
E	A	R	■	R	A	■	I	■	A	N	■	A	S	O
M	■	D	U	M	B	M	A	D	N	E	S	S	■	K
A	B	A	C	A	■	A	■	Y	■	R	O	O	T	S

If RESIDENT PHYSICIAN reaches you at the correct address, disregard this notice.

If not, please take a few seconds to fill out and mail the form below and help us in our efforts to have RESIDENT PHYSICIAN reach you promptly.

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Dr. .....
Please print your name

Resident ☐ ☐ Intern
Please check one

Hospital Name .....

Street Address .....

City .....Zone ....State .....

Specialty .....

My chief is Dr. (full name) .....

I expect to complete my training here:

.....
month year

Former Hospital Address:
Hospital Name .....

City .....State .....

RESIDENTS WANTED

RESIDENCIES — Positions available: Dean's Committee Veterans Hospital—Staff with faculty appointments at University of Pittsburgh Medical School; 1050 beds in two units, fully approved programs in General Surgery (5 years), Medicine (3 years), Otolaryngology (3 years), Ophthalmology (3 years), Urology (4 years), Radiology (3 years), Pathologic Anatomy (4 years), Clinical Pathology (4 years),—Excellent opportunity experimental pathology, and PM&R (2 years), affiliated programs in Plastic Surgery, Orthopedics, Neurosurgery, Anesthesia and Allergy. Applicants must be citizens and graduates of Class A Medical Schools. Stipends: $2840 to $4500 per annum. Apply to: Director, Professional Services, VA Hospital, University Drive, Pittsburgh 40, Pennsylvania.

PSYCHIATRIC RESIDENCIES—Indiana University Medical Center, are now available, fully approved for three years of psychiatric training in a modern 2500-bed Medical Center. Widely diversified training and experience provided in a 250-bed psychiatric treatment hospital, with rotating services through adjacent campus facilities, including 500-bed V. A. Hospital, active University child guidance clinic and a University psychiatric outpatient clinic. Ample opportunities for training and consultative services in a variety of University clinics and in three other University hospitals, including a children's hospital. Broadly oriented University training program with close personal supervision of psychotherapy in clinics and hospitals. Impressive inter-departmental opportunities for active clinical and allied basic research in a new Psychiatric Research Institute and for teaching and supervisory experience in the Medical School and its affiliated training programs in the social sciences. Stipend for first year, $4800, increasing proportionately to third year, $6000. Eligibility for state licensure required for appointment. Write: John I. Nurnberger, M.D., Department of Psychiatry, Indiana University Medical Center, Indianapolis, Indiana.

PRINTING AND RECORDS

THREE YEAR FULLY APPROVED PSYCHIATRY Residency in 500 bed general hospital in Chicago Medical Center; Deans Committee supervised program on 95 bed Psychiatry & Neurology Service, affiliated with U. of Illinois, Stritch School of Medicine, Chicago Medical School, Institute for Juvenile Research, Chicago State Hospital and Municipal Courts. Have large OP clinic. Write: Manager, 820 South Damen, Chicago 12, Illinois.

RESIDENCIES—MODERN 236 BED HOSPITAL; charity service and clinics; general practice 1-2 years; pathology 3 years; internal medicine; full time Director Medical Education; stipend $250 first year; $75 housing allowance. Write: Intern-Resident Committee, Cabell Huntington Hospital, Huntington, West Virginia.

PSYCHIATRY—Two stipends available September 1 for new two-year residency program leading to directorship of community mental health clinic or regional mental health center. Emphasis on child psychiatry and community outpatient services. Co-sponsored by Department of Psychiatry, (R. L. Stubblefield, M.D., Chairman), Southwestern medical School and Parkland Hospital, Dallas, and Texas Department of Health. Stipend $6,000—$7,500 per annum based on number of dependents. Minimum requirement for acceptance, completion of two-year approved psychiatric residency. Upon completion of training, salary to be expected, $15,000 and up. Apply to Charles F. Mitchell, Director, Division of Mental Health, Texas Department of Health, Austin 1, Texas.

WANTED: RESIDENT—MALE or FEMALE—for 175 bed hospital; fine community; one hour from Philadelphia; excellent experience in all types of medical, surgical, and obstetrical cases; new hospital fully equipped; Pennsylvania license required; salary open; contact E. H. Prescott, Administrator, Pottstown Hospital, Pottstown, Pennsylvania.

APPROVED THREE YEAR RESIDENCY IN RADIOLOGY at 500 bed General, Medical and Surgical Hospital and large Outpatient Service in medical center. Affiliated with the University of Illinois for supplemental therapy and the Childrens Memorial Hospital for pediatric radiology. Supervised by the Deans Committee representing University of Illinois, Stritch Medical School and Chicago Medical School. Apply: Manager, Veterans Administration Hospital, 820 South Damen Ave., Chicago 12, Illinois.

PEDIATRIC RESIDENCIES. Openings in 1st and 2nd year approved Pediatric Residencies. Two available now; others July 1, 1958. Adequate salary. 800 bed Medical School affiliated county general hospital, located in greater Los Angeles near beach cities. Apply L. A. West, M.D., Medical Director, Los Angeles County Harbor General Hospital, 1124 West Carson Street, Torrance, California. U. S. Citizenship required.